

THE TRANSACTIONS

OF THE

South African Philosophical Society.

DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF
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PART I.

Order : COLEOPTERA.

Family : CICINDELIDÆ.

Mentum notched, labium very short, hidden by the mentum ; maxillæ long, slender, ciliated inwardly, ending in an articulated hook, and with an inner palpiform, bi-articulated process ; mandibles long, falcate, with several teeth on the inner curve ; palpi quadri-articulated ; antennæ with eleven joints ; legs slender, nearly always very long ; tibiæ not notched on the inner side ; tarsi five jointed.

Lacordaire (Gener. d. Coleopt. t. 1. 1854, p. 5) divides this family into five tribes, three of which only are represented in South Africa¹ : *i.e.*—

1. Maxillæ ending in an articulated hook.

(A.) Third joint of the maxillary palpi longer than the fourth.

a. First joint of the labial palpi hardly longer than the depth of the notch in the mentum. MANTICHORIDÆ.

b. First joint of the labial palpi longer than the depth of the notch in the mentum. MEGACEPHALIDÆ.

(B) Third joint of the maxillary palpi shorter than the fourth.

CICINDELIDÆ.

Tribe : MANTICHORIDÆ.

Palpi moderately long, the labial and maxillary of about the same length, both with the apical joint slightly flattened at the tip ; no wings under the elytra, six abdominal segments in both sexes,² the anterior tarsi not dilated in the male.

A. Abdomen with six segments in both sexes, anterior tarsi not dilated in the male. MANTICHORA.

B. Abdomen with seven segments in the male, six in the female, anterior tarsi of the male dilated : PLATYCHILE.

Gen. MANTICHORA. Fabric.

Syst. Eleuth. 1. 1801. p. 167.

Mentum broadly notched, and with a strongly developed, median, slightly hooked tooth ; mandibles long, broad, very powerful, labrum with six sharp teeth in front, palpi slightly flattened at the tip ; antennæ filiform, the seven apical joints slightly pubescent ; head broad, eyes prominent with two orbital ridges on each side, one above

¹The other two tribes are *Collyridæ* and *Ctenostomidæ*.

²The last segment, owing to a deep, narrow groove at the base, seems to be bi-segmented. It is not so, however, as I did not find any spiracle in connection with that groove.

the other ; prothorax short, narrowed in the anterior part, the posterior developed behind in two lobes, broadly notched in the centre ; elytra soldered together, plane or slightly convex, deeply depressed at the base for the reception of the prothoracic lobes, declivous behind, more or less densely set with short, setigerous granules, which are more closely set, larger and have longer hairs at the declivity ; legs long, with strong bristles, tarsi not grooved, the anterior ones not dilated in the male ; six abdominal segments in both sexes, the penultimate one not incised in the male.

The male has long, falciform mandibles, the left one overlapping the right, which is longer in the curve, furnished with two large, triangular, flat inner teeth, with one or more minor teeth between, and a bi or trifold one at the very base ; the elytra are always more or less amplified in the middle, almost parallel, (*tuberculata*) cordiform, (*mygaloides*, *scabra*) or even nearly orbicular, (*ferox*) with the disk plane or a little convex, and gradually or abruptly declivous behind.

The female has shorter mandibles, each one with two inner flat teeth, one near the base, the other in the centre, besides the bifid one at the very base ; the elytra not being narrowed at the base look more nearly parallel, they are more convex at a short distance from the base, more abruptly declivous behind, and are more closely granulated, and the granules more pronounced.

Mantichora are black insects, that perched high on their legs move about in the dry barren plains of the Karoo, in a jerky impetuous manner, which implies a bold, fearless temper, evidently aware of its physical power. They do not emit, like the *Anthia*, a volatile fluid, in spite of the assertion to that effect, but they inflict a somewhat painful bite on the would-be captor if they are allowed an opportunity of doing so. The greater development of the mandibles of the male has probably been acquired for the purpose of seizing hold, as they do, of the broad neck of the female for mating. The males are very pugnacious among themselves.

I am still wondering what the Mantichora prey upon, and I am not at all satisfied that ants are their staple food, although I have several times seen examples with heads of soldiers of *Formica rufopilosa* fixed by their jaws on antennæ or legs.

I met once with a great number of *M. tuberculata* in the neighbourhood of Kimberley. It was after a moderate shower of rain (December) on a barren, dry, red-coloured soil, where one could hardly expect to come across much of insect life. Yet close search revealed the presence of a few grass-hoppers, the females of which are devoid of wings, *Hoplotopha asina*, Sauss, and which owing to their colouring adapt themselves so well to their immediate surroundings as to be very difficult of detection. *Graphipterus* (Carabidæ) were also fairly plentiful.

I found several vertical galleries of the larvæ, which were, however, on the alert, and would descend rapidly as I drew near the entrance. The ground was too hard to excavate, and they would not be lured out of their burrows.

I had probably alighted on a special breeding place, as I could have easily captured more than two hundred examples of *Mantichora* in a few hours.

I found one sort of ant only in that locality, and it was not plentiful, and although I have no doubt that a *Mantichora* can easily attack an *Hoplotopha*, I still wonder at the kind of prey made use of by the larva, unless it is the white ant, *Termes*, spec. which swarms in huge numbers after a shower of rain. That food was, however, scarce in that locality was evidenced by the small size of most of my captured specimens, some of them being the smallest I have yet seen.

To this scarcity or abundance of nutritive material is probably due the great diversity in size and sculpture, which makes the specific study of this genus so very difficult.

Although *Mantichora* is, as stated, generally found running in open bare spots, Mr. J. H. Brady informs me that he has captured it under stones in the neighbourhood of Port Elizabeth (Cape Colony).

Rev. H. Junod, of Rikatla, near Lourenzo Marquez (Delagoa Bay) writes that the natives there are in the habit of crushing with their foot this beetle, which, according to them, has a nauseating smell, and it is a common occurrence to meet with a *Mantichora* with crushed elytra.

So far as is now known the genus *Mantichora* is not met with north of the Equator.

I have seen examples from Mozambique, and also one (British Museum) from Lake Nyassa.

I am not aware of any specimens having been captured on the Zanzibar mainland, although the entomological fauna of that part of Africa is now pretty well known, so far as the large-sized beetles are concerned.

Thus the limit of the range in the Eastern part of Africa would seem to be about the tenth degree of latitude South, while in the Western side one species (*M. congoensis*, Péring.) has been captured on the Congo River, *i.e.*, about four degrees more north than on the eastern side. This Congo species is small, about the size of *tuberculata*, while the South African species are larger in the northern parts.

However dissimilar the facies of a full-grown *Mantichora* is to that of a *Cicindela*, the larval state is almost identical.

Herr H. J. Kolbe has described (Berl. Entom. Zeit. 1885 p. 48) what he considered to be the larva of *Mantichora*, from an incomplete example collected at Barmen, a mission station in Damaraland.

Through the kindness of Mr. E. G. Alston, of Van Wyk's Vley, Cape Colony, I am able to give the description of what is undoubtedly the larva of *Mantichora tuberculata*, *Megacephala* not having been met with in that locality :—

Body of thirteen segments, head plane, horny with a trapeziform, distinct labrum denticulated at the tip, set with regularly-disposed, short, setigerous tubercles, and a few rigid long bristles, the hind margin bristly, pale yellow, with the labrum infuscated, a transverse brown depressed line starting on each side from the point of insertion of the antennæ, and culminating in a brown fossa ; two longitudinal brown lines in the centre, above the labrum, and a larger, also brown, fossa on each side of the base. Width of head, 7^{m.m.} ; mandibles long, arcuated above the labrum, and with a long, stout inner tooth ; under-side very convex, bristly, with a long groove in the centre ; mentum cordiform ; labium quadrangular, bristly, with two median three-jointed, short palpi, and two lateral ones, each of these with a long stout basal joint, longer than the second, which bears two smaller ones, the outer one of which is three-jointed, while the inner one is single ; antennæ quadri-articulated, with the basal articulation very thick ;

four eyes on each side set on a very prominent black process, slightly bristly, the two upper ones very large, the lower ones hardly discernible ; the three thoracic segments horny, the first one $9\frac{1}{2}^{\text{mm}}$ wide, semi-lunar, broader than the head, and one-third longer, grooved in the centre, and with four dark impressions, two on each side of the median groove, carinated all round, with the outer carina set with short bristles, the second one, parallel, half the size of the first, grooved in the centre with a sub-lateral depression on each side, the third one trapezoid, shorter than the second and broader, the fourth, fifth, sixth and seventh horny above and underneath, the eighth with two large hirtose, fleshy tubercles, with a distinct horny ridge in the centre, and each tubercle with two curved sharp spines, the outer one twice as long as the inner one, ninth segment also raised . . . the other three have been crushed, each segment with lateral fascicles of hairs ; legs five-jointed, tarsi with two claws, the inner one twice as long as the outer one. Length, 38^{mm} .

It is almost impossible to identify quite accurately the species described by different authors and included in this genus.

For a long time only one species, *i.e.*, *M. tuberculata*, De Geer¹ (1778) was known ; it was described anew by Thunberg² (1781), and by Fabricius³ (p. 101). One wonders at such a conspicuous insect not having come under the notice of Linnæus.

Waterhouse, in 1837,⁴ described another (a female), and gave it the name of *latipennis*.

Klug, in a monograph of the genus (1849),⁵ described and figured the male of *latipennis*, and also three other species : *i.e.*, *herculeana*, *scabra*, and *granulata*, and Boheman in 1848⁶ had added one species, *i.e.*, *tibialis*.

Jas. Thomson, in 1859,⁷ made an attempt at monographing the

¹Mém. Insect. VII., 1778, p. 623, t. 46, fig. 14.

²Nov. Ins. Spec. 1781, p. 25, t. 1, fig. 38.

³Syst. Eleuther. 1801, p. 167.

⁴Ann. and Mag. Nat. History, 1, 1837, p. 503, fig. 62.

⁵Monogr. Lin. Ent. IV., p. 417.

⁶Coleopt. Caffrar.

⁷Monogr. des Cicind.

genus ; he criticised several of the species already described, added two new ones, but although figuring the four species, which, according to him, form the genus, he cannot be said to have made clear the specific characters ; moreover, he makes egregious mistakes.

De Castelnau again, in 1863,¹ revised the genus, accepting, as well established all but one of the species of Thomson, and their synonyms, and added three more species, making the total ten.

De Chaudoir, in the Catalogue of the Cicindelidæ in his Collection (1865), adopts another synonymy for some of the species, although he had, doubtless, access to Thomson's and to Mniszech's collections.

Gemminger and Harold, in their *Catalogus Coleopterorum* (1868) have partly followed Castelnau's revision of the genus.

Few collections possess a good series of *Mantichora*, and the exact habitat of several species is not recorded accurately : it must not be forgotten that even at the time of De Castelnau's stay in South Africa, the country beyond the Orange River was almost an unknown land, crossed only by a few hunters and naturalists.

Wingless insects are also, owing to the limited area over which they can roam, more prone to making *races* than winged ones ; thus there are very slight differences in shape, granulation and size produced in different localities, owing to abundance or scarcity of food caused by droughts.² If to this we add that some so-called species have been described from one or two examples, we can easily understand the difficulty experienced in identifying them anew, even after examination of the types.

According to Klug there are
5 species.

According to Thomson there
are 4 species.

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| 1. <i>M. tuberculata</i> , De Geer. Caffraria. | 1. <i>M. tuberculata</i> , De Geer, Cape
(Port Elizabeth). |
| <i>gigantea</i> . Thunb. do. | <i>maxillosa</i> . Fabric. |

¹Revue Zoologique.

²In places, other than the Karoo, where abnormal atmospheric conditions occur but seldom, the size of *Mantichora* varies but little ; whereas Karoo examples vary enormously in size.

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|--------------------------|------------------------------|--------------------------|-------------------------------------|
| <i>maxillosa.</i> | Fabric. Caffraria. | <i>gigantea.</i> | Thunb. |
| <i>tibialis.</i> | Bohem. do. | <i>tuberculata.</i> | Guerin. |
| 2. <i>M. granulata.</i> | Klug. Inter. S. Afric. | <i>granulata.</i> | Klug. |
| 3. <i>M. scabra,</i> | „ Mozambique. | <i>Dregei.</i> | ? |
| 4. <i>M. latipennis.</i> | Waterh. Natal. | <i>tibialis.</i> | Bohem. |
| 5. <i>M. herculeana.</i> | Klug. Interior
of Mozamb. | 2. <i>M. Sichelii.</i> | Thoms., Border
of Caffraria. |
| | | 3. <i>M. mygaloides.</i> | Thoms. Mozam-
bique, Natal. |
| | | 4. <i>M. latipennis.</i> | Waterh. Kurri-
chan, Mozambique. |
| | | <i>scabra.</i> | Klug. |
| | | <i>herculeana.</i> | Klug. |

Castelnan tabulates them as follows :—

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|---------------------------|----------------|---------------|
| 1. <i>M. tubercula a.</i> | De Geer, Klug. | Karoo. |
| | Thoms. | |
| <i>gigantea.</i> | Thunb., Guér. | |
| <i>maxillosa.</i> | Fabric., Oliv. | |
| 2. <i>M. tibialis</i> | Bohem. | Caffraria. |
| 3. <i>M. Dregei.</i> | Casteln. | ? |
| 4. <i>M. Sichelii.</i> | Thoms. | Orange River. |
| 5. <i>M. scabra.</i> | Klug. | Mozambique. |
| 6. <i>M. herculeana.</i> | Klug. | Mozambique. |
| 7. <i>M. Ludovici.</i> | Casteln. | Natal. |
| 8. <i>M. latipennis.</i> | Waterhouse. | |
| 9. <i>M. Livingstoni.</i> | Casteln. | |
| 10. <i>M. mygaloides.</i> | Thoms. | Mozambique |

Now I have been fortunate enough in being able to examine numerous series of *Mantichora* from nearly all parts of South Africa, as far as Mozambique in the East to Ovampoland in the West. I had also, four years ago, access for purposes of identification to the collections of De Chaudoir, now in the Paris Museum, of De Mnische, owned by Mons. René Obertheir, in Rennes,¹ and to that of the British Museum ;²

¹Which contains if not Castelnau's types, at least examples submitted to him. The Genoa Museum acquired Castelnau's Carabidæ, but not the Cicindelidæ.

²Contains, I believe, Thomson's types.

and I propose another arrangement of the species, laying stress, however, on the extreme difficulty of identifying the varieties. I do not myself believe that I have done better than those who have attempted this classification before, and I am not quite satisfied with my own arrangement, yet I believe it will make identification more easy than heretofore.¹

I recognise 7 species :—

1. <i>M. tuberculata</i> .	De Geer.
<i>gigantea</i> .	Thunb.
<i>maxillosa</i> .	Fabric.
<i>granulata</i> .	Klug.
<i>Dregei</i> .	Casteln.
<i>Sicheli</i> .	Thoms.
var. <i>tibialis</i> .	Bohem.
2. <i>M. mygaloides</i> .	Thoms.
<i>Ludovici</i> .	Casteln.
var. <i>damarensis</i> .	Péring.
3. <i>M. Livingstoni</i> .	Casteln.
4. <i>M. latipennis</i> .	Waterh.
5. <i>M. herculeana</i> .	Klug.
6. <i>M. scabra</i> .	Klug.
var. <i>pseudo scabra</i> .	Péring.
7. <i>M. ferox</i> .	Péring.

The facies is very much the same for all the species, the difference being mostly in size, greater or lesser ampliation of the elytra in the middle and the declivity behind ; the colour is black, sometimes dark-brown ; the shape of the mandibles is nearly the same (*M. ferox* excepted), the head and prothorax are always vaguely punctured and have a few rigid bristles, the granulation consists of small, sharp, conical tubercles, directed backwards and carrying a fine bristle, this granulation is always more defined and closely set at the declivity where there is also a more or less distinct apical tuberculated ridge on each side,

¹I have had to modify my arrangement as given in my 3rd contrib. to S. Afric. Coleopt. Trans. S. Afric. Phil. Soc., 1892.

each elytron has a fine dorsal raised line, better defined on the under part of the wing case than on the upper, and the outer sides are strongly serrated, with the humeral tubercle acute and more developed than the others in the male, while that of the female is very small.

The females are so very much alike that, with the exception of *ferox*, it is almost impossible to distinguish them, and I have therefore based my synopsis on male characters alone:—

SYNOPSIS.

- ELYTRA : Nearly parallel, sloping gradually behind, the median anterior dorsal part nearly smooth. *tuberculata.*
- „ with the whole disk covered with small, closely set tubercles, tibiae and basal joints of antennæ mostly reddish or reddish black. *var. tibialis.*
- „ amplified in the middle, slightly convex in the disk, gradually sloping behind, disk smooth in the anterior part. *megaloides. var. damarensis.*
- „ elongated, slightly amplified in the middle, very plane, retuse behind, disk smooth in the anterior part. *Livingstoni.*
- „ slightly amplified in the middle, gradually sloping behind with the sutural part of the declivity much depressed, slightly granulated on the disk : *herculeana.*
- „ very little amplified in the middle, gradually sloping behind and retuse apically, closely granulated all over, the tubercles very conspicuous. *scabra. latipennis.*
- „ very cordiform, short, the posterior part more raised than the anterior, very retuse behind, and strongly granulated all over. *var. pseudo-scabra.*
- „ nearly orbicular, quite smooth, and shining on the disk and sides, slightly tuberculated behind, and the disk a little convex. *ferox.*

M. TUBERCULATA. De Geer.

Mém. Ins. VII. 1778, p. 623, pl. 46, fig. 14.

Male : Black, moderately shining, head with a transverse impression between the point of insertion of the antennæ, and two longitudinal ones on the vertex, and with a few scattered bristles ; prothorax vaguely punctulated, although more closely in the anterior part than in the

posterior ; elytra with the outer sides serrated, but little amplified in the middle (average width $14^{m.m.}$ behind the humeral tubercles, $16^{m.m.}$ in the centre, and $15^{m.m.}$ at the top of the declivity), sloping gradually behind, aculeated at the apex, and covered with short setigerous tubercles, leaving a broad, smooth space in the anterior part, the tubercles larger and more closely set at the declivity, and the hairs longer.

Length, mandibles excluded : $33-41^{m.m.}$; width, $15-18^{m.m.}$

Female : Coloured like the male, and punctuation of head and prothorax alike ; elytra amplified in the middle in the same proportion as the male, but the fact of its having the humeral angle only very slightly dented, instead of sharp and protruding, as in the male, makes it look more parallel ; it is also more convex and retuse behind, the tubercles are more closely set on the outer sides, leaving a narrower central smooth dorsal space.

Length, $38-40$; width, $16-18^{m.m.}$

Var. TIBIALIS. Bohem.

Insect. Caffr. vol. 1, p. 1.

Facies of the type-form, but generally a little more narrow ; the elytra are more closely tuberculated, and there is no smooth dorsal patch, although the tubercles are also smaller and not so closely set along the suture ; the four basal articulations of the antennæ are rufous, and so are the tibiæ (examples from Griqualand West and the Vaal River have these parts black) ; the raised line on each elytron is more distinct than in the type.

Male. length, $35-40$; width, $16-18$.

Female. „ $31-38$; „ $14-17$.

The habitat of the type-form and of the variety differs. While *tuberculata* seems to be restricted to the Western part of the Colony (Paarl, Montagu, Robertson, Prince Albert, Fraserburg, Beaufort West, Carnarvon, Little Namaqualand), the variety *tibialis* occurs in Willowmore, Port Elizabeth, Sunday River, Burghersdorp, Griqualand West, Orange Free State, ? Transvaal, and British Bechuanaland.

As must be expected, however, there are many forms of transition between the type and the variety.

The *M. Sichelii* of Thomson, Monogr. p. 9, is evidently from his description the typical *tuberculata*, although the figure pl. 2. fig. 1 does not show the smooth discoidal patch ; and De Castelnau, who has doubtless seen Thomson's types, says in his Monograph : " that *Sichelii* is distinguished from both *M. tuberculata* and *Dregei* in having the disk of the elytra less granulated, and sometimes almost smooth.

In all probabilities it was *tuberculata* and not *tibialis* that found its way to Europe in the last century, because at that time the eastern and midland districts were either not occupied by the colonists or were not visited.

M. MYGALOIDES, Thoms.

Monogr. d. Cicind. 1857, p. 8 & 66, t. 2, fig. 3 & 4.

„ *M. Ludovici*, Casteln. Rev. Zool. 1883, p. 70.

Male : Black, or brownish black, not much shining ; head broad, mandibles long and strong ; prothorax of the usual shape, with a few punctures and bristles, the anterior part more closely punctured ; elytra narrowed at the base and apex, and amplified in the middle, the sides of the disk depressed, the median part a little convex and sloping gradually behind ; the line on each elytron more or less pronounced, the sides from the outer margin to the dorsal line finely granulated, the outer margin serrated, with the first tooth distant from the second.

Length, 46-43 ; width, 18-23^{m.m.}

Female : Colouring of the male, elytra parallel, more or less granulated, the dorsal line either moderately well defined or obsolete.

Length, 37-43 ; width, 18-20^{m.m.}

This species varies much in size.

I have taken as the types those examples the elytra of which are much narrowed in front and behind, and amplified in the middle (average width, 16-17^{m.m.} behind the humeral tooth, 21 to 23^{m.m.} in the centre, and 18-20^{m.m.} at the top of the declivity). This form, however,

of which Thomson's figure gives a good idea, seems to be restricted to Northern Damaraland and Ovampoland.

The examples from the Limpopo region and the Transvaal, also from British Bechuanaland, are less amplified in the centre ($16^{m.m.}$ across the shoulders, $21^{m.m.}$ in the middle, and $19^{m.m.}$ at the declivity), while other specimens from British Bechuanaland, Transvaal (Potchefstroom) and the Orange Free State, are hardly broader in the middle than a good size *tuberculata* ($14^{m.m.}$ at the shoulders, 18 in the middle, and 16 at the declivity), from which they are to be distinguished less by the shape than by the finer granulation.

I believe that it is from *one* of these small examples that De Castlenau has described *M. Ludovici*, length, $32^{m.m.}$, width, $16\frac{1}{2}^{m.m.}$ I cannot, however, consider it as a variety.

Var. DAMARENSIS.

Black, shining ; head and prothorax like the type form ; elytra more regularly cordiform, that is to say less narrowed at the base, with the whole of the disk from the outer sides gradually convex and sloping gradually behind, the sides are loosely granulated, and the sutural part nearly smooth, the outer margins are serrated as in the type.

The convex shape of the upper part of the elytra, which are also rounder laterally is the distinguishing feature of this variety. I have received a small example from Lower Damaraland, almost smooth, shining, and with the elytra nearly as sub-orbicular as *M. ferox*, and which, except for the differently shaped jaws, might have been taken for a variety of the latter.

Length, 37-40 ; width, $18-22^{m.m.}$

Female like those of *mygaloides*.

Length, 39-41 ; width, $20^{m.m.}$

Damaraland, vicinity of Lake N'Gami.

M. LIVINGSTONI, Casteln.

Revue. Zoolog. 1863, p. 71.

Black, very shining, head and prothorax of *mygaloides*, the punctures

and the bristles alike; elytra more or less amplified in the middle (17^{m.m.} across the shoulders, 21 to 24^{m.m.} in the middle, and 19 to 22^{m.m.} at the declivity), long, retuse behind, plane on the disk with the outer margins raised, and very closely and sharply serrated; the sides of the disk with a fine, dense, closely set granulation, leaving a nearly smooth discoidal space.

Length, 44-46; width, 21-23^{m.m.}

Female: Colour of the male, and very shining, much depressed or moderately convex, the granulation very close, and the raised lines on each elytron well defined.

Length, 38-45; lat., 19-22^{m.m.}

Doubtless closely allied to *mygaloides*, more shining as a rule and also longer. It is mostly differentiated by the serration of the outer margins, which is closer and sharper, the two humeral spines are always set at equal distance from one another, which is not the case with *mygaloides*; the more elongated shape of the upper part of the elytra, with the disk very much depressed, imparts to it a different facies, although the more rotund specimens form a link with *mygaloides*.

Mr. A. W. Eriksson has collected a good number of examples of this species in Northern Ovampoland, where *M. mygaloides* (typical) was also met with.

Northern Ovampoland.

M. LATIPENNIS, Waterh.

Magaz. Natur. Hist. 1, 1837, p. 503, fig. 62.

Hope. The Coleopt. Manual, 1838, frontispiece part II.

Klug. Linn. Entomol. IV. 1849, p. 421, pl. 11, fig. 6.

Waterhouse having described this species from a female example, the identity of *latipennis* cannot be ascertained, and although I believe that female to have been that of *mygaloides*, owing to the locality from which it is said to come from, I consider as the true *latipennis* of Klug, if not of Waterhouse, some examples I have received from the neighbourhood of Delagoa Bay, and which agree very much with the figure in Klug's monograph.

Black, very shining ; head very broad, mandibles broad and very long ; head and prothorax of the usual shape ; elytra long, not much narrowed at the base, and very little amplified in the centre (16 to 19^{m.m.} across the shoulders, 20 to 23 in the middle, and 19-21^{m.m.} at the top of the declivity) ; plane on the disk, sloping gradually behind, and declivous at the apex, margins closely and sharply serrated, the whole of the upper part covered with a closely set, prominent granulation, and much more developed on the declivity than on the dorsal part.

Length, 45-47 ; width, 20-23^{m.m.}

Although my examples of *latipennis* are, as a rule, not much amplified in the middle, yet I have received one, the elytra of which are as broad as those of *scabra* (19^{m.m.} across the shoulders, 25^{m.m.} in the middle, and 21 at the top of the declivity), the discoidal part is, however, longer, and the hind part is not so much raised.

Female : Colouring of the male, elytra with the whole of the disk conspicuously granulated.

Length, 43-46 ; width, 20-21^{m.m.}

Delagoa Bay (Rikatla).

M. HERCULEANA, Klug.

Linn. Entomol. IV., 1849, p. 423, pl. 11, fig. 7.

Reise nach Mozambique, Insect, 1862, pl. VIII., fig. 1

Male : Black, moderately shining ; head, mandibles and prothorax shaped like those of *latipennis* ; elytra long, not much narrowed at the base, a little amplified in the middle (21^{m.m.} across the shoulders 24^{m.m.} in the middle, and 23 at the top of the declivity), plane on the disk, gradually dehiscent behind, with the sutural apical part deeply depressed ; the granulation on the elytra, although close, is not much pronounced, and is denser on the sides than on the disk.

Length 50 ; width 24^{m.m.}

The giant of the genus.

Closely allied to *latipennis*; the granulation of the elytra is not so dense nor so pronounced, and the depression of the suture in the posterior part is very noticeable.

Mozambique.

I have only a male example, but I have seen another one, I believe, from Lake Nyassa, in the British Museum.

M. SCABRA, Klug.

Linnea. [Entomol. IV., 1849, p. 420, pl. 1, fig. 3 & 4.

Thoms. Monogr. d. Cicind., p. 8, pl. 2, fig. 1 & 2.

Reise nach. Mozamb. Insect. pl. 8, fig. 2 & 3.

Black, shining; head and mandibles as broad and long as in *latipennis*; prothorax of the usual shape; elytra short, very cordiform (16-17^{m.m.} across the shoulders, 22-24 in the middle, and 19-20 at the top of the declivity), the anterior part of the disk depressed, the posterior part raised, very convex, and abruptly retuse behind; the whole of the upper part covered with a closely set prominent granulation, less dense, however, close to the suture.

The brevity of the elytra, which are also much amplified in the middle, and above all the convexity of the posterior part of the disk impart to this species a distinct facies.

Length, 43-47; width 22-24^{m.m.}

The female is exactly like that of *latipennis*.

Length, 43-46; width, 20-21^{m.m.}

Delagoa Bay (Rikatla, Antiocha),

Mashunaland (Manica, Tuli), Mozambique.

Var. PSEUDO-SCABRA.

Black, shining; head and mandibles of the type-form; elytra as cordiform, but with the posterior part of the disk less convex, that is to say, not so much raised, the granulation is smaller, the line on each elytron finer, and the discoidal space between these two lines smooth, and the lateral serration of the anterior part formed of five very distinct spines close to each other.

The granulation of the elytra, and also the lateral serration is that of *Livingstoni*, but the shortness of the elytra, the ampliation of the sides in the middle, and their abrupt declivity behind approximates this variety to *scabra*.

Length, 42 ; width, 23^{m.m.}

I have seen one male only, which was captured by Mr. A. W. Eriksson, in Ovampoland (Cunene River).

M. FEROX. *new species.*

plate 1, fig. 1.

Brown, very shining ; jaws more slender than in the other species, the two inner teeth of the left mandible far apart, and of equal size, the apical one of the left with one or more minor teeth on each side, somewhat like a shark's ; head and prothorax of the usual shape, but hardly punctulated ; elytra nearly orbicular with the outer margins very acutely serrated, sharply declivous behind, with the posterior part of the disk somewhat convex, the upper part quite smooth, the declivity with very small setigerous granules not closely set.

Length, 30-45 ; width, 20-25^{m.m.}

Female : As shining as the male ; the granulation of the hind part is, however, more pronounced, and there are also a few small tubercles scattered on the lateral sides of the disk.

Length, 39-44 ; width, 20-23^{m.m.}

This species is very distinct from the others ; not only are the elytra more rotund than in any other, but the inner teeth of the mandibles are also differently shaped.

Great Namaqualand (Goagas), South-Damaraland.

Gen. **PLATYCHILE.**

McLEAY, *Annul. Jav.* 1825, p. 9.

Mentum with a long, acute tooth, the last joint of the palpi securi-

form, the basal one of the labial palpi a little longer than the tooth in the mentum; mandibles with two inner falciform teeth and a bifid one at the base; head broad; labrum nearly straight with four teeth in the centre, the two median ones acute; eyes not large; antennæ filiform; prothorax transversal, plane, the posterior angles produced in a very long, triangular spine fitting against the shoulders; elytra ovate, not much convex; no wings; legs moderately long, tarsi very bristly; male with the three basal, anterior tarsi dilated, and with seven abdominal segments, the penultimate one deeply incised, female with six segments only.

Although the shape of the mentum and of the palpi are those of *Mantichora*, I believe that the proper place of this genus is in the vicinity of *Tetracha* and *Megacephala*, in spite of its very distinct facies, for they have in common a seven-jointed abdomen in the male, with dilated tarsi, and mandibles nearly analogous; the apical joints of the palpi are also in proportion more thickened than those of *Mantichora*, and like *Tetracha* they are nocturnal. The genus seems to be restricted to South-Africa, and has only as yet been met with on the Western part, from Houts Bay to Walfish Bay, and probably Benguela.

P. PALLIDA. Fabric.

Syst. Eleuth. 1, 1801, p. 167.

THOMS. Monog. des Cicind., p. 13, pl. 3, fig. 2.

Very pale-yellow, nearly transparent, smooth, shining; apical part of the mandibles and inner teeth infuscated; labrum with six rigid bristles in front; head with two round median impressions; prothorax trapeziform; very little convex, very slightly narrowed at the apex and at the base, with a narrow, median groove, acutely margined laterally with the basal angles produced in a long conical spine; elytra elongato-ovate, very little convex, and amplified in the middle, faintly punctured in the anterior part, and very briefly granulose in the posterior part, with the suture margined and raised; legs very pale-yellow bristly.

Length, 12-13; lat. 5-6^{m.m.}

This species was up to lately one of the rarest beetles in collections. I came across it quite by accident. It is found on the sea-side, lying in the day time in burrows in the sand-dunes from which it emerges at night or dusk. I have found several together in a single burrow. Mr. R. Lightfoot has kept some for a long time in captivity. They would bury themselves in the sand with very great rapidity, and come out at night to devour the flies given them during the day.

They are very pugnacious and courageous, using their mandibles freely when captured; their colouring, which harmonises wonderfully well with that of their surroundings, is transparent white, turning to pale-yellow after death.

Cape Colony (Table Bay, Houts Bay, Berg River, Port Nolloth).

Var. SUTURALIS. Péring.

pl. 11, fig. 1.

P. SUTURATA. Péring.

Trans. Phil. Soc., 1888, p. 67.

Very similar to the type-form, from which it differs merely by having two fuscous spots on the prothorax; the suture from the base to a little short of the apex is deeply infuscated; the punctures on the anterior part are deeper, and the granulation in the posterior part a little more defined.

Damaraland (Walfish Bay, Sandwich Harbour).

Length, 12-13; width, 5-6^{m.m.}

Var. PLAGIATA.

pl. 11, fig. 2.

Differs from the var. *suturalis* by having besides the black sutural band an ovate fuscous plaga extending on each side of the suture.

Length, 11-13; width, 5-6^{m.m.}

Damaraland (Walfish Bay).

In his *Encyclopédie d'Histoire Naturelle Coleopt.* 1877, vol. 1, p. 13, Dr. Chenu gives a wood-cut of *Platychile pallida* with that same dorsal fuscous patch. It is not unlikely that the insect from which the drawing was made had been captured in Benguela by Moufflet.

Port Nolloth is the most northerly habitat of *P. pallida*, but the insects from that locality are exactly like those found near Cape Town, while in Sandwich Harbour, about 200 miles from Port-Nolloth, the varieties *suturalis* and *plagiata* only seem to occur.

Tribe : MEGACEPHALIDÆ.

Palpi elongated, the labial longer than the maxillary, and with the basal joint much longer than the depth of the notch in the mentum, the notch with a very small tooth in the middle.

Gen. MEGACEPHALA. Latr.

Gener. Crust. et Ins. 1, 1806, p. 175.

Mentum with a short tooth, anterior part of the labium triangular, last joint of the palpi very securiform and hollowed at the tip, the basal labial joint longer than the notch in the mentum, the penultimate one twice as long as the last one, and a little curved; labrum narrow, denticulated at the apex, head broad; eyes large; antennæ long, filiform; prothorax carinated laterally, narrowed at apex and base; elytra oblong, convex, no wings, legs moderately long, sub-quadrangular, with a median groove on each face, the male with the three joints of the anterior tarsi dilated inwardly, and seven abdominal segments,¹ the penultimate one not incised, the female with six segments only.

This genus has only one representative in South-Africa, but is represented in Africa by six other species, all closely allied, and differing mostly in the size of the granulation on the elytra, and also in the shape of the postical angles of the prothorax; two species are found

¹Lacordaire (Génér. d. Coléopt. 1854, p. 12) mentions six abdominal segments in each sex; I have before me the males of *M. regalis*, the abdomen of which is really seven-segmented.

on the Western side (Senegal and Guinea), one in Kordofan, and three on the Eastern side (Massai, Somaliland, and Mombassa).

M. REGALIS. Bohem.

Insect. Caffr. 1, 1848, p. 2.

Thomson's Monogr. d. Cicind., p. 21, pl. 4, fig. 3,
pl. 1, fig. 2.

Brassy-green, palpi and mandibles at the base, antennæ, legs, with the exception of the knees of the intermediate and posterior pairs, and the last three abdominal segments yellowish; elytra dark-blue on the dorsal part, violaceous on the sides, and with the outer margin yellowish-red; labrum six-dented, with six rigid bristles; head broad, smooth, with a few lateral bristles and a semi-arcuated impression on each side above the labrum; prothorax not broader than the head, narrowed in front and behind, the central part rotund, with a deep, narrow groove in the centre, the outer sides with a double diverging, acute margin not produced in a spine at the basal angles¹; elytra oblong, a little broader in the posterior part than at the base, very convex, with the suture depressed, and covered with very conspicuous, closely set granules, oblong on the back, round on the sides and apical part, and from the interstices of which spring light brown bristles; the anterior part of the disk has a nearly smooth line reaching from a little below the base to about the centre, and better defined in the male than in the female.

Length, 26-27; width, 10-11^{m.m.}

Mr. E. G. Alston has captured some examples, running in the daytime in a trench, or water-furrow, after a shower of rain.

Transvaal (Klerksdorp), Bechuanaland (Kuruman), Maghaliesberg and Lake N'Gami, teste Boheman.

¹In the figure of *regalis* as given by Thomson in his Monograph, the lateral margins of the prothorax form two projecting teeth; while this angle is noticeable on one male example from Shoshong, although not so much developed as in Thomson's figure, it is entirely absent in two other male specimens from Klerksdorp.

Var. HERERO.

Brassy-green, very shining on the head and prothorax, labrum, mandibles, with the exception of the apical part, antennæ and palpi pale-yellow, intermediate and posterior tibiæ sometimes infuscated; elytra elongated with the sides nearly straight in the male; bright metallic-green on the back, dark-blue on the sides and apex, very convex, covered with closely set granules, elongated on the back, round on the sides and behind, the suture slightly depressed, interstices with moderately long, rigid bristles.

Length, 22; width, $7\frac{1}{2}$ m.m.

Differs from the type in the shape of the elytra much more parallel than in *regalis*, the colouring is different, the suture is less depressed owing to the dorsal tubercles being much less developed, which makes also the smooth discoidal space edging the three dorsal row of oblong tubercles less discernible.

Communicated by Professor C. Aurivilius, of the Stockholm Museum.

Damaraland.

Tribe : **CICINDELIDÆ.**

Palpi short, labial shorter than the maxillary; their basal joint hardly as long as the depth of the notch in the mentum, the notch with a sharp tooth in the centre, eyes with an orbital ridge; the tarsi dilated in the male, abdomen of the male with seven segments, the penultimate one notched; the female with six segments only.

A. Third joint of the labial palpi slender. **BOSTRICHOPHORUS,**

OPHRYODERA,

CICINDELA.

B. Third joint of the labial palpi thickened. **MEGALOMMA.**

Very thick.

MYRMECOPTERA, DROMICA

COSMEMA.

Gen. BOSTRICOPHORUS. Thoms.

Annal. Soc. Ent. d. France, 1856, p. 331.

Mentum with the median tooth long and acute ; palpi slender, mandibles with three strong, inner teeth, labrum very convex, produced in front, and with five teeth at the apex, antennæ with the four basal joints filiform, the 5th, 6th, and 7th sub-foliated, the apical four compressed ; male with a little fascicle of hairs under the fourth joint, this fascicle rudimentary in the female ; prothorax with the outer sides perpendicular and acutely carinated ; elytra parallel, the sutural part spinose at the apex, not much convex on the upper part ; legs long, slender.

SYNOPSIS OF SPECIES.

Antennæ with the 5th, 6th, and 7th joint sub-foliated, elytra with three or four yellow spots on each side.

Bianconi.

Antennæ with the 5th, 6th, and 7th joint very much compressed ; elytra with six or seven yellow spots on each side.

notatus.

Antennæ with the 5th, 6th, and 7th joint sub-foliated ; elytra with two yellow fasciæ and a few lines.

compressicornis.

B. BIANCONI. Bertol.

Dissert. Ins. Col., 1858, p. 7, pl. 1, fig. 1.

Pl. 11, fig. 5.

Very dark bronze, the basal joints of the antennæ, legs and under-side dark-blue, very shining ; palpi pale-yellow, the apical joints dark-blue ; labrum yellowish-white, narrowly edged with black, and having four setigerous punctures, one on each side, the other above the second tooth ; head finely strigose ; prothorax cylindrical, slightly impressed in front and behind, and grooved in the centre ; elytra parallel, very little convex, the spines on each side of the suture very conspicuous, black, opaque, with the outer margins violaceous, closely punctured and with three or four yellow spots on each elytron ; two, comma-shaped at the base, close to the suture, one at about the median part of the elytra, with a smaller one alongside of it, which is, however, often

wanting ; sides of the pectus and prothorax with long whitish hairs ; tarsi grooved on the upper part.

Length, 15-18 ; width, $5-5\frac{1}{2}^{m.m.}$

Delagoa Bay (Rikatla).

B. NOTATUS. Bohem.

Insect. Caffr. 1, p. 6.

Pl. 1, fig. 5.

Very dark bronze on the upper part, underside and legs bright metallic violaceous blue ; palpi pale-yellow, the apical joint dark blue ; basal part of the mandibles yellow ; labrum convex, yellowish, slightly infuscated at the base in the female, the apical part five-dented, and with four setigerous punctures, one on each side, the other above the second tooth ; head strigose, with a few decumbent hairs, antennæ with the four basal joints filiform, the 5th, 6th, and 7th compressed and slightly sub-foliated, the fascicle of hairs under the 4th joint very small ; prothorax shagreened, sub-cylindrical, impressed transversely at base and apex, and slightly grooved longitudinally in the centre, spinose at the apex of the suture, opaque with moderately broad, brassy punctures and with six or seven small yellow spots on each side, arranged as follows :—one, comma shaped, under the scutellum, and another one, very faint, a little lower down, four in a row, the basal one also comma shaped, and another one in the disk outside the others ; sides of thorax and pectus clothed with white hairs ; tarsi not grooved.

Length, 13-16 ; width, $5-6^{m.m.}$

Closely allied to *B. Bianconi* ; the 4th, 5th, 6th, and 7th joints of antennæ are not so much dilated, and the yellow spots on the elytra are more numerous.

Transvaal (Potchefstroom).

B. COMPRESSICORNIS. Bohem.

Ofvers. Vet. Ac. Forh. 1860, p. 4.

Metallic black on the upper part, dark blue with a greenish tinge underneath ; palpi yellowish, the apical joints dark blue ; labrum

yellowish marginated with black, with only three teeth in front; head strigose, slightly hairy; prothorax of the usual shape; elytra hardly punctated, the apical sutural spines very sharp, black with yellow patches spots and lines arranged as follows on each side: a sutural line reaching from the base to about the middle, a diagonal sinuated patch beginning below the shoulder, reaching from the outer margin to about the centre of the dorsal part, and with a round dot between the suture and the apex of the patch, another and broader sub-apical sinuated patch connected with the suture, but not with the outer margin, three small longitudinal lines between the two patches, and three minute dots between the supra apical patch and the apex; tarsi not grooved.

Length, 18; width, 6^{m.m.}

I have made that description from an example in the British Museum, but I neglected to examine the labrum; Boheman in his description, l.c., says that it is tri-dentate, and his assertion is corroborated by Bates. Entomol. Month. Magaz., 1872, p. 287.

Vicinity of Lake N'Gami, teste Boheman; Middle Limpopo, teste Bates.

Gen. OPHRYODERA. Chaud.

Bull. Mosc. 1860, IV., p. 314.

Mentum with a short, acute median tooth; palpi slender, labrum long, very convex, produced in front, and with five teeth at the apex, antennæ with the seven ultimate joints compressed, the 5th, 6th, and 7th dilated; prothorax with the outer sides perpendicular and carinated; elytra parallel, moderately convex, narrowed diagonally behind; median and posterior tarsi grooved on the upper part.

O. RUFOMARGINATA. Bohem.

Insect. Caffr. 1, 1848, p. 3.

Pl. 2, fig. 3.

Bronze, more or less dark, the four basal points of the antennæ,

legs, tarsi and underside violaceous-blue, shining, head, prothorax and lateral sides of abdomen very pubescent; head strigose, labrum very long and convex, strongly five-dented at the apex with one setigerous puncture on the outer side, and two above the second teeth, yellow, margined with brown and with two triangular fuscous maculæ at the base in both sexes; prothorax deeply impressed at base and apex, grooved in the centre, shagreened; elytra truncated at the base, parallel, not much convex, narrowed diagonally behind, granulated near the base, and from there broadly, but not deeply, punctured, opaque with the outer margin violaceous, and with yellow markings disposed on each side as follows: suture with a broad line on each side, a small dot at the base, near the scutellum, an oblique fascia very much broadened triangularly at the tip, starting from the humeral angle, in the male, disconnected with it in the female, and reaching the suture, below this fascia a narrow line, thickened at both ends, running diagonally from about the centre of the disc towards the suture, and a broad postical band rounding the apex and ascending a little along the outer margin.

In some male examples from Potchefstroom (Transvaal), the postical band ascends laterally as far as the tip of the diagonal dorsal line and unites with it.

Length, 22-23; width, $6\frac{1}{2}$ -7^{m.m.}

Transvaal (Potchefstroom, Rustenburg.)

Var. BRADSHAWI, Péring.

Ann. and Magaz. Nat. Hist., 1888, p. 220.

Shape and size of the typical form; the colouring of the elytra chalky-white instead of golden yellow; the basal dot, on each side of the scutellum, is wanting; the oblique dorsal fascia is narrow, begins below the shoulder, reaches the median part of the disc, and is not broadened at the end, instead of the narrow line below it there is a round dot, but the postical band remains the same.

Length, 20-22; width, 7^{m.m.}

Manica, Zambeze River, Ovampoland.

Var. OBERTHURI, Péring.

Ann. and Magaz. Nat. His., 1888, p. 21.

Size and colouring of the preceding variety ; the basal dot on each side of the scutellum is also missing ; the oblique dorsal fascia is longer, less curved, and does not reach the shoulder ; there is no discoidal spot, and the postical band, not much broader than the suture, ascends along the outer margin to about half the length of the elytron.

Length, 23 ; width, 8^{m.m.}

Zambeze River.

Var. ERIKSSONI, Péring.

Third Contr. etc., Tr. S. A. Phil. Soc. 1892, p. 4.

Colouring of var. *Oberthuri* ; the basal dot on each side of the scutellum is wanting ; the oblique dorsal fascia is narrow, curved, and reaches the humeral angle, and the outer margin from about the medium part has a white band, broadening towards the apex and emitting a short slanting dorsal ramus.

Length, 23 ; width, 8^{m.m.}

Ovampoland.

O. BOHEMANI, Péring.

Ann. and Magaz. Nat. Hist., 1888, p. 220.

Head and prothorax of *O. rufomarginata*, and equally pilose ; each elytron with a very broad, golden-yellow sinuated band, disconnected from the margin and the suture, narrowed in the median part, where it encloses a small rounded spot (background), enlarged from past the middle, narrowed towards the apex, and forming within the subapical sutural part a dent which leaves an irregular triangular patch of the background visible. Legs and underside as in *O. rufomarginata*.

Length, 21 ; width, 7^{m.m.}

Angola.

This locality is beyond what I consider to be the limit of the South-African Coleopterous fauna. It is not far, however, and as no exact locality is given, it is possible that this species occurs also in Northern Ovampoland.

Gen. CICINDELA. Linn.

Syst. Natur. 11, 1735, p. 657.

Mentum with the median tooth strong and sharp, palpi slender, the ultimate ones sub-cylindrical and blunt at the tip ; labrum not covering the mandibles entirely, either sinuated in the anterior part and with three more or less obsolete teeth ; or convex in the centre and with one, three or five very sharp teeth in the centre, having always some setiger punctures in the anterior margin ; head strigose ; eyes very prominent ; antennæ filiform ; the four basal joints shining, the others opaque and briefly pubescent ; prothorax short, deeply impressed transversely in front and behind, and longitudinally in the centre ; elytra broader at the base than the prothorax ; seldom deeply pitted ; generally brassy or dark bronze with a glowing-red tinge, and dark or greenish-blue on the underside and legs ; they are winged, and the legs are long and slender.

Species of a genus distributed all over the globe must perforce have undergone some modifications which have led to the creation of several genera, the characters of which are not very satisfactory ; owing, however, to differences in the general facies, I propose to divide the South African species in four sub-genera :—

1. Labrum transverse, arched in the centre, strongly tri-dented at the apex, mandibles very long ; elytra short, much amplified, very flat on the upper part ; legs short. EURYMORPHA. Hope.
2. Labrum narrow or sub-triangular ; uni or tri-dented at the tip ; elytra very little convex, serrated behind and the suture ending in a short spine. CICINDELA. Linn.
3. Labrum narrow, convex, five-dented at the tip ; prothorax narrow, elongated ; elytra sub-cylindrical, not serrated behind. EURYODA. Lacord.

4. Labrum convex, tri-dented at the tip; elytra narrow with the shoulders rounded, very convex, each wing-cover singly rounded behind, serrated and ending in a short spine. PRODOTES. Thoms.

Sub-genus EURYMORPHA. Hope.

The Coleopter. Manual, 11, 1838, p. 160.

C. (E.) CYANIPES. Hope.

Coleopt. Manual 11, 1838, p. 160, pl. 1, fig. 4.

E. MOUFFLETI. Fairm.

Ann. Franc. 1856, p. 95.

E. BOHEMANI. Bohem.

Ofv. Vet. Ac. Forh., 1860, p. 4.

pl. II., fig. 4.

Metallic green, or brassy, shining on the upper part; very dark blue, almost black on the underside; basal articulations of the antennæ, head, prothorax, sides of pectus, (even transverse folds of the abdomen) and legs covered with dense, white, decumbent hairs; labrum green, or brassy, bi-impressed at the base, tri-dented in the centre; the central tooth long, the anterior margin with four setigerous punctures on each side of the median tooth; antennæ with the basal joints very hairy, the seven apical ones short, slightly compressed; head *punctulated*, strigose between the eyes; prothorax broader than long, impressed longitudinally in the centre and transversely at base and apex, with the apical and basal angles very acute, almost spinose; elytra broader than the prothorax, bi-sinuated at the base for the reception of the sharp angles of the prothorax, gradually amplified from the shoulders to the middle and very little attenuated behind; very slightly convex, with a depression behind on each side of the suture; closely but faintly punctured and with a series of four or five larger punctures, often ill-defined, on each side; posterior margin very finely serrated; sides of the pectus and femora thickly covered with white hair; abdominal segments with a transverse fringe of white hairs.

Length, 11-15; width, 6-7^{m.m.}

Walfish Bay. Sandwich Harbour.

Hope was the first to describe and figure this species, but did not know whence it came. The colour of the typical insect was metallic green, and he thought it to be a native of Madagascar.

The same species, but bronze, instead of metallic green, was described anew by Fairmaire and Boheman, by the former from examples from Cape Negro (Mossamedes), by the latter from specimens collected on the banks of the Kuisip River by Wahlberg.

Owing to the liberality and kindness of J. J. Cleverly, Esq., Resident Magistrate of Walfish Bay, I have been able to examine several hundred examples of *Eurymorpha* collected in that vicinity, and have found among them two green ones only, and I have also received one green example from Sandwich Harbour. Very dark specimens are also occasionally met with. The habitat of this insect will probably be found to extend from Angola down to the Orange River mouth. Mr. Cleverly writes that the green variety is very scarce. I have seen a green example in the British Museum, which, I believe, although I am not certain, comes from Angola; and it has not been captured so far south as Port Nolloth, although eagerly looked for.

E. cyanipes has two features not met with among the South-African Cicindelidæ: the labrum and the mandibles of the colour of the body are without any trace of yellow patch or spot, and the abdominal segments have a transverse fringe of hairs.

It is met with on the sea-shore mostly, but also on the sand-dunes at no great distance from the sea, running with great rapidity, and taking readily to flight.

Sub-Gen. CICINDELA.

The South African species comprising this sub-genus may be divided in nine groups according to the pattern and colouring of the bands or spots on the wing-covers.

- A. Elytra white or yellowish white with bronze or golden bands disconnected with the suture: *Capensis*, *chrysographa*, *Elizabethæ*, *candida*, *Herero*, *Damara*, *Natalensis*, *Nilotica*, *nitidula*.

Spots or bands yellow or pale-yellow.

- B.* Elytra broad, short, two small dots on each elytron : *quadriguttata*.
C. Elytra broad with one basal, comma shaped spot, one in the centre alongside the suture, two lateral rami, one postical round spot, and an apical triangular patch on each elytron : *lurida*, *vidua*, *tenuipicta*.
D. Elytra elongated, with one basal, comma shaped spot, two alongside the suture, often connected, two lateral rami and an arcuated apical patch on each elytron : *brevicollis*, *vivida*, *clathrata*, *pudica*.
E. Base of elytra with a margin emitting a short narrow line on each side of the scutellum, outer margin broad, rami short : *Monteiroi*, *Bertolonii*.
F. Base of elytra with two small triangular patches on each side of the scutellum, and four very broad nearly parallel patches on each side : *regalis*.
G. Elytra with four broad, short fasciæ on each side, the postical one bisinuated, and a large post-median patch : *Dongolensis*.
H. Elytra elongated, narrow, each elytron with narrow rami, more or less disconnected, the white outer margin seldom entire : *melancholica*, *dissimilis*.
D. Elytra elongated, each elytron with a broad margin sending three more or less blunt dorsal rami : *pudibunda*, *marginella*, *intersita*, *intempestiva*, *inanis*, *longula*, *Bocagei*, *limbigera*.

SYNOPSIS.

SECTION A. Mandibles very long, elytra broad, each with a longitudinal dorsal band, three rami and a postical round spot ; the dorsal bands broad, very well defined :

Dorsal bands narrow, median oblique patch often missing :

Two basal, short bands only on each side :

B. Mandibles moderately long ; elytra with three dorsal rami, but no postical spot on each side :

Same, but the rami broader and uninterrupted :

Elytra with a supra humeral arcuated band, and a postical ramus on each side :

Elytra with a very broad sutural patch, and three dorsal rami on each side :

Capensis.

chrysographa.

Elizabethæ.

candida.

Herero.

Damara.

Natalensis.

Elytra with a narrow dorsal line on each side, three rami and an elongated sub-postical patch :

nilotica.

Elytra with the same markings as *nilotica*, but more elongated, and the dorsal bands narrower :

nitidula.

C. CAPENSIS, Linn.

Syst. Natur. 17, 1735, II., p. 657.

Oliv. Ent. 11, 33, p. 19, t. 1, fig. 11.

Labrum wide, slightly sinuated on the anterior part with a small median tooth, three small setigerous punctures on each side of the tooth, and a larger one in the anterior angle, palpi with the exception of the ultimate joints and outer part of mandibles at the base, white; head and prothorax brassy, glowing-red underneath, covered with thick decumbent hairs; elytra broad, much amplified past the middle in the female, moderately convex, rugose, white with a narrow sutural bronze line, a longitudinal band reaching from the base to two-thirds of the length, and three short oblique rami disconnected with the outer margin and a round postical spot of the same colour on each side; the first ramus, a humeral one, and the second, a median one, coalesce with the longitudinal band, the third one is thickened at both ends, the hind one ending under the longitudinal band, but very seldom connected with it, and the round spot is above the outer margin, where the postical rounding begins; underside dark-blue, sides of abdomen thickly set with white hairs.

Length, 12-14; width, 5-7^{m.m.}

Capensis is very common from October to April on the sandy seashore, but is seldom met with even one mile inland.

Cape Colony (neighbourhood of Cape Town, False Bay, Berg River).

Var. CHRYSOGRAPHA, Dej.

C. chrysographa, Dej. Spec. 1831, V. p. 254.

C. barbifrons. Bohem. Ins. Caffr. I, 1848, p. 12.

Shape and colouring of the type-form, but a little smaller, setigerous

punctures of the labrum, hairiness of the head, prothorax and under part identical, but the bronze bands of the elytra are narrower, the median oblique ramus is generally wanting in the male, and often reduced to a mere dot in the female; the bronze bands often turn to metallic black.

Length, 11-13; width, 5-6^{m.m.}

Common on the sea-beach near Port Elizabeth. Boheman gives the interior of Caffraria as the habitat of his *C. barbifrons*. It was very likely captured by Wahlberg at Port-Elizabeth, at the same time as *Mantichora tibialis* and *Microlestia rugosopunctata*.

The types of Dejean are two males in which the longitudinal band and the supra-humeral one are left, and are thus shaped like a Y, and with a small dot underneath, evidently the apical end of the postical ramus.

Var. ELIZABETHÆ.

Shape, size and colouring of *chrysographa*, but a little smaller; the elytra are white with a narrow golden suture, two narrow, short bronze bands at the base, and sometimes a very faint trace of a postical ramus on the female.

Length, 10½-11; width, 4-5^{m.m.}

Cape Colony (Port Elizabeth).

C. CANDIDA. Dej.

Spec. 1, 1825, p. 123.

C. MIXTA. Chaud.

Ann. d. Franc. 1835, p. 436.

Labrum yellowish-white, wide in length, narrow in width, slightly tri-dentate in the male, the median tooth strongly developed in the female, two small setigerous punctures on each side of the median tooth and one in the anterior angle, palpi with the exception of the ultimate joints, and outer part of mandibles, yellowish-white; pro-

thorax brassy or very dark bronze, covered with white decumbent hairs; elytra slightly amplified in the middle in the female, hardly convex, very slightly punctured, pale yellow with a narrow sutural bronze line, and three dorsal ones on each side: the humeral one is arcuated and produced backwards along the suture in a narrow line coalescing with the median one, which is also arcuated and produced behind in a short line reaching to about the second third of the length of the elytron, the third line runs obliquely in the posterior part, and is much thickened at both ends; underside dark-blue, densely pilose laterally.

Length, 11-13; width, 4-5^{m.m.}

Smaller than *C. capensis*, with the elytra less convex and also less amplified in the middle, the oblique rami are shorter and almost crescent shape, the longitudinal line on each elytron is wavy instead of being straight, and there is no postical spot.

The narrow lines uniting the thickened ends of the lateral rami disappear often leaving only more or less rounded dots on the elytra; it is on specimens in which these lines have partly disappeared that De Chaudoir described his *C. mixta*.

Natal (D'Urban), Cape Colony (East London, Port Elizabeth, Albany district)

Found on the sea shore in company with *C. chrysographa*, near Port Elizabeth, but unlike the latter it occurs also several miles inland on sandy paths or roads.

In the Natal examples the dorsal bands are more regular than in those from the Cape Colony.

Var. HERERO.

Smaller than the type form, colouring of the head and prothorax more greenish; elytra with the dorsal rami greenish instead of dark bronze, broader and beginning nearer to the margin than in the true *candida*.

In this variety the dorsal rami have become more developed than in

the type, and the white background is therefore not so conspicuous. Were it not for the peculiar shape of the elytra, which as well as in the type form, are more rotund in the centre and attenuated behind, it would be well nigh impossible to distinguish *herero* from *clathrata*.

Length, 10 ; width, 4^{m.m.}

Communicated by Professor C. Aurivilius of the Stockholm Museum.

Damaraland.

C. DAMARA. new spec.

pl. 1, fig. 3.

Labrum convex in the centre, triangular in front, tri-dentate at the apex ; the median tooth long and sharp, two setigerous punctures on each side of the median tooth, and another one in the anterior angle ; head and prothorax pilose ; elytra elongated, nearly plane on the upper part, closely but not deeply punctured, pale-yellow ; the suture and the outer margin with a fine narrow dark-blue metallic line, a dark-bronze supra humeral, arcuated band, four or five punctures near the suture and a sinuated postical ramus, the apical end of which is often only left, on each side ; underside greenish-blue, thickly tomentose laterally.

Length, 11-12 ; width, 4^{m.m.}

Sandwich Harbour.

C. NILOTICA, Dej.

Spec. 1, 1825, p. 119.

Klug. Symb. phys. 111, 1832, t. 21. fig. 4.

Labrum transverse, narrow, hardly sinuated in front, yellowish-white with five setigerous punctures on each side of the median tooth, which is hardly defined ; head and prothorax pilose ; elytra subquadrate, hardly convex, each one with a longitudinal dorsal line near

the suture reaching from the base to about two-thirds of the length ; three oblique rami and a supra marginal patch, bronze or brassy : the humeral ramus is a little arcuated, and coalesces with the longitudinal band in the same way as the median one, which is broadly triangular at the top ; the third one, longer than the others, is very much thickened at both ends, and the postical patch is situated between the outer margin and the apical thickened part of the postical ramus ; underside bright metallic green.

Length, 9-9½ ; width, 4-5^{m.m.}

A species with a wide distribution in Africa.

Recorded in South-Africa from Delagoa Bay (Rikatla) on the eastern side, and Sandwich Harbour, a little north of Namaqualand on the west, but so far from no intermediate inland place.

C. NITIDULA, Dej.

Spec. I., p. 120.

Lucas. Expl. Alger., p. 7, t. 1, fig. 5 a.

C. CAPENSIS. var. Oliv. Entom. II., 33, p. 19, pl. 2, fig. 19, a.c.

Labrum transverse, very slightly sinuated in front, without any median tooth, but with five setigerous punctures on each side : head and prothorax pilose ; elytra elongated, with the shoulders rounded, not much broader than the prothorax at the base, and very slightly amplified behind, white, the suture with a fine brassy line, and a longitudinal dorsal band near the suture ; three diagonal rami and a supra marginal, postical patch on each elytron, golden or reddish-bronze ; the bands and spots are arranged like those of *Nilotica*.

Length 12-13 ; width, 4-4½^{m.m.}

The shape of the elytra differentiates this species from the preceding one ; they are narrower with the shoulders rounded, while in *nilotica* the humeral angles are sharp, and the elytra sub-quadrate ; the dorsal rami are also more perpendicular in *nitidula*, owing to the narrowness of the elytra.

It is not without some hesitation that I include this species among

the South African ones. I saw, however, in De Chaudoir's collection two examples under the catalogue name *natalensis* which I could not differentiate from *nitidula*, and one of them labelled "Natal, don. Hope," and also "*Natala*. Reich."

C. Nitidula is common in Senegal, and occurs also on the Guinea coast.

C. NATALENSIS, Péring.

Transact. S. Afric. Philos. Soc., 1888, p. 69.

Labrum short, transverse, slightly tri-dentate in the anterior part, yellowish-white; two small setigerous punctures on each side of the median tooth, and one in the outer angle; head and prothorax bronzy-green, very shining, the latter short, with the dorsal lobes very convex; elytra parallel, slightly convex, closely but not deeply punctured, yellowish-white with a broad, sinuated bronze patch extending on the suture from the base to two-thirds of the length, and on each elytron a humeral arcuated ramus uniting with this sutural band, a median, oblique one with the upper part very thickened uniting also with the sutural band, and a diagonal ramus thickened at both ends; underside bright metallic green with the apical abdominal segments yellowish-red; tibiæ pale yellow.

Length, 12; width, $4\frac{1}{2}$ m.m.

Very distinct from any other South African species.

Transvaal (Boksburg).

SECTION B.

C. QUADRIGUTTATA, Wiedem.

Germ. Mag. Entom. IV., p. 116.

C. CÆRULESCENS. Klug. Jahrb. 1, p. 29.

C. ROTUNDICOLLIS. Dej. Spec. 1, p. 56.

Green or reddish-bronze, sub-opaque on the upper part, underside of thorax and pectus golden green; abdomen dark-blue;

labrum long, semi-circular with a moderately long median tooth, yellowish-white, with two setigerous punctures on each side of the median tooth, and one in the anterior angle; head and prothorax with a few erect setæ, the latter rounded, short, very slightly pilose on the outer margin and underneath, the hair greyish but not decumbent; elytra quadrate at the base, a little amplified in the female, closely punctured with the punctures moderately deep, each elytron with a broad yellowish spot at the base on the humeral angle, a smaller one past the median part of the disk and a little nearer to the outer margin than to the suture, and a smaller one below it, nearer to the suture than to the outer margin.

Length, 10-14; width, 5-6^{m.m.}

The reddish-bronze variety is nearly as common as the green. Neighbourhood of Cape Town. Has not been recorded, to my knowledge, from any other locality.

Mountain slopes and grassy plains. Occurs from August to November.

SECTION C.

Elytra with the bands and spots well defined and moderately broad

lurida.

Elytra with the bands and spots very broad

Namaqua.

Elytra with the bands very narrow, the humeral band interrupted, and no immediate spot on suture

tenuipicta.

C. LURIDA, Fabric.

Spec. Insect, 1, p. 284.

Oliv. Entom. 11, 33, p. 18, pl. 3, fig. 35.

C. VIDUA. Gory. Ann. Franc., 1833, p. 174.

Dark-bronze, sometimes bronzy-green on the upper part; labrum elongated, strongly tri-dentate at the apex, with two setigerous punctures on each side of the median tooth, and one in the anterior angle; head and prothorax hardly pilose except on the sides of the latter; elytra much broader than the prothorax with the base square,

very slightly convex, hardly amplified past the middle in the female, rugose near the base, punctulated behind, each elytron with a small, round, yellow patch in the centre of the base, another one close to the suture at about the middle, a humeral diagonal ramus, one short, median ramus produced behind in a broad curved line the point of which, slightly inflated, reaches nearly the suture, a small round dot near the outer margin, often connected with the thickened apical end of the median ramus, and a narrow triangular patch in the apical margin; underside glowing-red; the abdomen dark-blue.

Length, 12-13; width, $5-5\frac{1}{2}$ m.m.

Banks of ponds or ditches, sandy paths. Found throughout the year, but scarce in May and June.

Cape Colony (neighbourhood of Cape Town, Worcester).

Var. NAMAQUA.

Shape of type-form, although more robust, and marked alike, but the elytra are brassy, and the dorsal bands and spots nearly twice as broad.

Length, 12-14; width, $4\frac{1}{2}$ -6 m.m.

Cape Colony (apparently restricted to Little Namaqualand (O'okiep. Sept).

Var. TENUPICTA, Chaud.

C. TENUPICTA. Chaud. Bull. Mosc., 1837, VII., p. 6.

Shape, size and colouring of *lurida*, but the dorsal bands are very narrow, and the spots very small; the humeral ramus is interrupted in the middle, and the median round spot close to the suture is wanting.

Length, 12; width, $4\frac{1}{2}$ m.m.

Cape Colony (Riversdale, Knysna).

SECTION D.

The two spots along the suture, on each side, quite disconnected, no marginal band :

vivida.

The two spots very elongated and coalescing, the humeral and median ramus connected by a narrow marginal line :

brevicollis.

The two spots are very much elongated and coalesce, forming a band near the suture, the dorsal rami are connected by a broad marginal band :

clathrata.

The two spots along the suture, round, small, far from one another, the dorsal rami blunt, and rich golden yellow :

pudica.

Same, but with a marginal band connecting the dorsal rami :

hypocrita.

A triangular patch past the median part of each elytron and an apical one, no marginal band :

rusticana.

C. VIVIDA. Bohem.

Insect. Caffr. 1, 1848, p. 9.

Elongated ; head and prothorax bronzy, moderately shining, elytra very dark, opaque ; labrum elongated, convex, strongly tri-dentate at the apex, yellowish, and with two setigerous punctures on each side of the median tooth, and one in the anterior angle, head and prothorax with short, decumbent white hairs ; elytra elongated with the shoulders slightly rounded, not amplified in the middle in the female, somewhat, although slightly convex, faintly punctured, each elytron with a comma shaped yellowish patch in the centre of the base, two more, one below the other, along the suture, a humeral curved ramus, a median one also curved and produced backwards in an arcuated band, the tip of which is much thickened and reaches the suture, and an apical much curved marginal band with both ends thickened ; underside greenish-blue, thickly clothed with light hairs laterally.

Length, 12 ; width, $4\frac{1}{2}^{\text{m.m.}}$

This species is so closely allied to *C. catena* Fabric. from India, and *C. abbreviata*, Klug, from Madagascar, that I hesitate in considering it as distinct from the former and older species.

Delagoa Bay (Rikatla).

C. BREVICOLLIS. Wiedem.

Zool. Magaz. 1, 1823, p. 67.

Elongated, labrum white with two very fine setigerous punctures on each side of the median tooth, and another in the anterior angle ; head and prothorax brassy, moderately shining, with some decumbent white hairs ; elytra finely punctulated, bronze with often a blue line round the dorsal markings, slightly convex, the female's not amplified in the middle, and each elytron with a small comma shaped yellowish patch in the centre of the base, two elongated ones along the suture, as often coalescing as not, and then forming along the suture a narrow band strangulated in the middle, a humeral curved ramus, a median one also curved and produced behind in a curved band, the tip of which, much thickened, reaches the suture, and an apical, much curved marginal band, with both ends thickened ; the median ramus is often connected along the margin by a narrow yellowish streak with the humeral one, and sometimes also with the postical band, in which case the disposition of the dorsal bands and spots approximates to that of *clathrata* ; when this marginal streak is wanting, the dorsal design is that of *vivida*, the only difference being in the shape of the two spots along the suture which are always more or less elongated in *brevicollis*, instead of being round ; underside dark-blue or greenish-blue, sides covered with dense white hairs.

Length, 9-11 ; width, 4-5^{m.m.}

I cannot differentiate *brevicollis* from *neglecta*. Dej., although the latter has a very narrow outer margin on the elytra uniting all the dorsal rami, this margin is also often met with in *brevicollis*, and I have often caught *in copulâ* examples with and without outer yellow margin.

Cape Colony (neighbourhood of Cape Town, Worcester) ; Senegal, Zanzibar (teste Gerst.).

On sandy spots near margins of ponds, sandy paths, sea-beach.

C. CLATHRATA. Dejean.

Spec. 1, p. 115.

C. INTERMEDIA. Klug, Monatsb. Berl. Ac. 1853, p. 245; Peter's Reis. nach. Mozamb., 1862, p. 146, pl. 9, fig. 1.

Labrum elongated, convex, tri-dentate at the apex, white with two setigerous punctures on each side of the median tooth and one in the anterior angle; head and prothorax brassy, covered with white decumbent hairs; elytra slightly convex, not amplified past the middle in the female, finely punctulated, dark-bronze, sometimes bronze with a greenish tinge, each elytron with an inverted comma-like yellow patch coalescing with a band running along the suture (the said band formed by two very much elongated spots) as far as half the length, a humeral curved ramus, a median one also curved and produced behind in a curved band, the thickened end of which reaches the suture, and an apical, much curved marginal band with both ends thickened, and both humeral and median rami as well as postical band connected along the margin by a broad band of the same colour, underside dark-blue, sides covered with dense white hairs.

Length, 10-13; width, 4-5^{m.m.}

The width of the dorsal markings is apt to vary; it is largest in some examples from Bushmanland, and narrowest in some examples from Delagoa Bay.¹

I cannot consider this species otherwise than identical with *C. neglecta*, Dej., and *senegalensis*, Dej.

Cape Colony (Rondebosch, Cape Town, Hex River, Worcester, Enon, Bathurst, Graham's Town, East London, and Bushmanland); Natal (D'Urban, Maritzburg); Zululand (Eshowe); Orange Free State (Parys); Transvaal (Boksburg, Potchefstroom, Marico); Delagoa Bay (Rikatla): Gazaland, Mozambique (teste Klug).

¹The number of setigerous punctures varies much in that species; there are sometimes three on each side of the median tooth, sometimes one only.

C. PUDICA. Bohem.

Insect. Caffr. 1, 1848, p. 8.

Labrum elongated, convex in the centre, strongly tri-dentate, pale yellow, with one deep setigerous puncture on each side of the median teeth and another in the anterior angle ; prothorax slightly pilose on the outer margins ; elytra elongated, dark bronze, with golden yellow markings, broadly but not deeply punctured, each elytron with a small, round spot in the base, two alongside the suture, a blunt humeral ramus, a median one produced behind in a broad diagonal band, and an arcuated, apical marginal band, underside glowing red, with the abdomen dark-blue, the sides slightly pilose.

Length, 12-14 ; width, $4-5\frac{1}{2}$ m.m.

More robust than *clathrata*, and although the markings of the elytra are of the same pattern, the rami are broader and more blunt, the spots are much smaller and far from one another, and the colouring of the marking is of a rich yellow.

Natal (Frere).

Var. HYPOCRITA.

Shape and colouring of the type, the body is longer, the markings of the elytra are similar, but the dorsal rami are connected along the outer margin by a broad, seldom narrow, yellow band.

Length, 15-16 ; width, $5-5\frac{1}{2}$ m.m.

Orange Free State (Parys) ; Transvaal (Klerksdorp, Potchefstroom).

Var. RUSTICANA.

Size, shape and colouring of the type ; the regularly disposed bands on the elytra have disappeared, leaving only two minute yellow spots on each side along the suture, three very indistinct ones in the median

part of the disk, a triangular patch past the middle, and a postical one on the apical margin.

Length, 15 ; lat. $5\frac{1}{2}$ m.m.

Transvaal (Barberton).

SECTION E.

Marginal band of elytra broad, median ramus well defined

Monteiroi.

Marginal band of elytra very narrow, median ramus hardly defined

Bertolonii.

C. MONTEIROI, Bates.

Cist. Entom., vol. II., p. 331.

Labrum yellow, very much elongated, acutely five-dentate with one deep setigerous puncture on each side of the median tooth and one in the anterior angle ; head and prothorax very pilose ; elytra elongated, very dark bronze, margined with pale-yellow all round, base included, each one with a short line below the scutellum, connected with the basal margin, the lateral margin emits a short acute tooth, a median ramus directed towards the suture and a blunt inflation above the apical part ; underside and sides of abdomen thickly covered with white hairs.

Length, 11-11 $\frac{1}{2}$; width, 4-4 $\frac{1}{2}$ m.m.

Bate's description was evidently from an example in which the median lateral ramus was not produced obliquely behind towards the suture. I have seen examples from Lourenço Marques in which the median ramus is well-defined but the diagonal line it emits is very narrow.

Delagoa Bay (Lourenço Marques, Rikatla.)

Var. BERTOLONII. Chaud. in litt.

The undescribed species under that name which I saw in Chaudoir's collection, labelled Mozambique, is similar in shape, size and colouring to *Monteiroi*, but the marginal band is very much narrower, and the central ramus is hardly defined.

Length, 11 ; width $4^{m.m.}$

Mozambique (teste Chaud.) Rikatla.

SECTION F.

C. REGALIS, Dej.

Spec. V., 1831, p. 251.

Casteln. Hist. d. Ins. I., p. 15, pl. 1, fig. 6.

Labrum yellow, triangular apically, with a long median tooth : three equi-distant setigerous punctures on each side ; head and prothorax brassy ; elytra broad, with the outer sides nearly parallel, hardly convex, finely shagreened, very dark-blue or dark-bronze, with two sub-triangular pale-yellow basal patches on each side of the suture and four broad patches on each elytron : the first comma-shaped basal patch is alongside the scutellum, and its lower part often coalesces with the second one which runs for a short distance along the suture ; the humeral patch is slanting and rounds off the humeral angle, the other three patches, median, post median and apical, are very broad and transverse ; underside dark-blue, very shining, sides covered with dense white hairs.

Length, 17-17½ ; width, $7^{m.m.}$

This species, which has no ally, has a very wide range in Africa ; it is recorded from Senegal. My South-African examples have been captured on the Zambeze River at the junction of that river with the Shiré (F. C. Selous), Gazaland (Rev. Junod), and Tette (teste Klug).

SECTION G.

C. DONGOLENSIS, Klug.

Symb. physic. III

C. FIMBRIATA, Dej. Spec. V. p. 241.

Brassy on the upper part, underside metallic red with a faint bluish tinge ; labrum very long, triangular, ending in the apex in a very long,

sharp spine in both sexes, and with a double series along the apical margin of small punctures from which spring long setæ; mandibles very long, all the joints of the palpi reddish-brown; prothorax short, setulose on the outer sides; elytra broad, a little amplified behind in the female, finely shagreened, and with four lateral yellow patches and one round postical spot on each side: the humeral patch, rounding the humeral angle is nearly transverse and broader on the disk than on the shoulder, the median one very broad does not reach the suture; the post median is very small and connected along the outer margin by a very narrow line with the median one; the marginal apical patch is very much thickened at the tip, and reaches the suture, the round spot is situated on the disk, between the post median lateral patch and the suture; underside clothed laterally with dense white hairs.

Length, 16-17; width, $6\frac{1}{4}$ -7^{m.m.}

Like the preceding one this species has a wide range. It is recorded from Nubia and Senegal. My South-African examples have been captured on the Zambeze River, at the junction with the Shiré, and at Delagoa Bay (Rikatla).

SECTION H.

Each elytron with a humeral slanting line, a marginal band reaching from below the humeral line to the posterior third part and sending a short-dented ramus, an apical marginal band connected at the tip with a small supra postical spot, and two discoidal dots, the anterior one with a transparent space underneath.

melancholica.

Each elytron with a moderately broad humeral slanting line, and a marginal band reaching the apex, and emitting a short median ramus, a round supra postical patch and a short apical line, also two discoidal dots.

jucunda.

Each elytron with a humeral slanting line, an arcuated median patch disconnected from the outer margin, an apical marginal band, and three disconnected discoidal dots.

Dregei.

Each elytron with a humeral dot, four discoidal ones and a narrow apical marginal band.

disjuncta.

Each elytron with a discoidal ante-median dot, a median crescent shape patch sending a small curved line, a small marginal postical dot, and two apical patches.

dissimilis.

C. MELANCHOLICA, Fabric.

Syst. Eleuth. 1, p. 236.

C. ÆGYPTIACA. Dej. Spec. I., p. 96.

Klug. Symb. phys. III., pl. 21, fig. 7.

Guér. Mag. Zool. 1845, p. 12, p. 161, fig. 1, a.

C. LUDIA. Dej. Spec. V., p. 244.

C. MICROSTICTA. Klug. Peter's Reis., 1862, p. 147.

C. CONGRUA. Klug. Monatsb. Berl. Ac. 1853, p. 245 ;

Peter's Reis. 1862, p. 148, pl. 9. fig. 2.

C. TANTILLA. Bohem. Ofv. Vet. Ac. Förh. 1860, p. 6.

Greenish bronze, shining but little on the upper part and bright greenish blue underneath ; labrum short, nearly transverse, slightly tri-dentate at the tip, pale yellow with one setigerous puncture on each side of the median tooth, and one in the outer angle ; head aciculated, prothorax short, finely rugose and with a few decumbent white hairs on the outer sides ; elytra elongated, slightly amplified past the middle in the female, closely punctured with the punctures bluish, the female with a smooth, shining, irregular patch on each side of the anterior part of the disk ; each elytron has a humeral narrow white band rounding the angle and followed by a small discoidal dot, a median narrow marginal band reaching from below the humeral line to the posterior third part, and emitting at about the middle a short narrow line a little thickened at the tip, and sometimes, although seldom, connected by a still narrower line with a round spot below it, and an apical marginal line the tip of which is connected with a minute dot placed a little below the second dorsal one ; underside clothed laterally with white decumbent hairs.

Length, 8 to 11 ; width, $3-4\frac{1}{2}^{m.m.}$

H. congrua and *C. microsticta* cannot be considered even as varieties, and judging from the description, I take *C. tantilla*, Bohem. to be only a small example of *melancholica*.

The range of this species is very great. It is found in Sicily and Northern Africa, Egypt and Senegal, Nubia, Zanzibar, and Angola (*microsticta*), Madagascar (*trilunaris*); in South Africa it is recorded from Tette (*congrua*), and Lake N'Gami (*tantilla*), Delagoa Bay (Rikatla), and Gazaland, Transvaal (Potchefstroom), Cape Colony (Van Wyk's Vley and Carnarvon); also from Java, Eastern India, Transcaucasia and Northern Persia, according to De Chaudoir.

C. JUCUNDA, Péring.

Trans. S. Afric Phil. Soc. VI., 1892, p. 4.

Labrum white, transverse, dented in the middle, and with one setigerous puncture on each side of the median tooth and another on the outer anterior angle; head, prothorax and elytra bright-green, the prothorax slightly pilose on the outer sides, elytra parallel, narrow, a little convex, closely punctured, with the punctures slightly blue, and having on each side a humeral, slanting white line rounding the humeral angle and reaching the centre of the disk, but slightly disconnected at the apical end which is thickened in the shape of a dot, a marginal moderately broad band reaching from below the humeral slanting line and reaching the suture, but sending at about the middle a straight ramus, thickened at the tip, and reaching the centre of the disk, and from there directed backwards to the third postical part of the disk where it is much thickened at the end, also a short lateral patch at the rounding of the wing cover above the apical part, followed by a short, upright line; underside densely clothed laterally with white hairs.

Length, 10; width, 4^{m.m.}

Allied to *melancholica*, still more to *vicina*, and not to *pudibunda*, as I have erroneously stated, (Trans. S. Afric. Philos. Soc. vol. VI., 1892, p. 4), but differs much from the former in the colouring of the upper part, which is bright green instead of bronzy-green; the dorsal bands and spots are very much broader, pure white instead of

yellowish-white, and there is a continuous, well-defined marginal band from under the humeral diagonal line to the apical suture.

Only the male of this species is known to me.

Ovampoland.

C. DREGEI, Mannerh.

Bullet. d. Mosc., 1837, II., p. 16.

Chaud. loc. cit., 1837, III., p. 3.

Greenish-bronze, not shining on the upper part, bright greenish-blue underneath; labrum pale-yellow, short, sub-triangular, the apex slightly tri-dentate with three setigerous punctures on each side of the median tooth and one in the anterior outer angle; prothorax slightly pilose on the outer sides; elytra elongated, finely punctured, the punctures greenish-blue, each elytron with a humeral yellowish-white line rounding the shoulder and reaching the centre of the disk, but disconnected on the disk, a crescent-shaped line disconnected with the outer margin, with the points facing backwards and a round patch below it near the suture, a round discoidal spot above the apex, and a very narrow apical margin of the same colour; underside densely set laterally with white decumbent hairs.

I have not seen the female of that species, which seems to be a form of transition between *melancholica* and *disjuncta*.

Length, 10; width, 4^{m.m.}

Cape Colony (Burghersdorp), Transvaal (Potchefstroom).

C. DISJUNCTA. Dej.

Spec. vol. 1, p. 98.

C. AFRITA. Thoms. Archiv. Entom. vol. 1, 1857, p. 130.

C. CENTROPUNCTATA. Dej. Spec. V, p. 245.

Dark bronze, very little shining on the upper part, greenish blue and shining underneath; labrum yellowish, short, sub-triangular at the apex and tri-dentate in the middle with the setigerous punctures on

each side of the median tooth and another one in the anterior outer angle ; prothorax with the outer sides clothed with a few decumbent white hairs ; elytra elongated, a little amplified behind, the female without any smooth shining discoidal patch, rugose in the anterior part punctulated behind, each elytron with a small yellowish patch on the humeral angle at the base, two on a transverse line in the anterior part of the disk, a sub-triangular patch close to the outer margin with two small round dots underneath, the upper one close to the suture, the lower one near the outer margin, and a very fine marginal band edging the postical part ; underside clothed laterally with white hairs.

It sometimes occurs, although very seldom, that the median patch is united with the small dot below by a very fine, narrow, diagonal line, this is the *C. centropunctata* Dej., apparently described from one example only.

Banks of streams or water-furrows. Cape Colony (Graham's Town, in February, Seymour, in March), Natal (D'Urban, Frere, Pinetown, Maritzburg), Transvaal (Potchefstroom).

C. DISSIMILIS. new spec.

Dark bronze on the upper part, bright greenish-blue underneath, labrum white, short, slightly triangular apically and tri-dentate, with two setigerous punctures on each side of the median tooth and a broader one in the anterior outer angle ; prothorax slightly pilose, elytra elongated, a little amplified behind, convex, closely and finely punctured, and with four or five broader punctures near the base in a supra humeral depression and a moderately well defined series of the same on each side of the suture from base to apex, these punctures are greenish-blue ; each elytron with a discoidal irregular, small, yellowish-white patch in the anterior part, a shagged, broad, median patch, disconnected with the outer margin, and sending backwards a narrow ramus running parallel to the suture and thickened and curved at the tip, a small postical dot on the outer margin, opposite the thickened apical part of the dorsal ramus, and two conspicuous patches of the same colour on the apical part, (the sutural one the largest of the two)

connected together by a very narrow marginal whitish line ; underside clothed laterally with white hairs.

Length, 9 ; width, $3\frac{1}{2}^{\text{m.m.}}$.

A very distinct species without any ally known to me in South-Africa.

Delagoa Bay (Rikatla).

SECTION I.

Each elytron with a broad marginal band ; band very broad, the median ramus not much directed backwards :

pudibunda.

Band narrower, median ramus very slender, nearly always interrupted :

marginella.

Band broad, median ramus wide, diagonal :

intersita.

Band narrow, interrupted in the posterior part, median ramus slender :

intempestiva.

Band moderately broad, no median ramus :

inanis.

Band broader than in any of the allied species, the median ramus diagonal :

longula.

C. PUDIBUNDA. Bohem.

Ofvers. Vet. Ac. Förh. 1860, p. 5.

Metallic green, moderately shining on the upper part, underside of prothorax and pectus glowing red, abdomen dark-blue, legs golden green, basal joints of palpi, mandibles (apex excepted) and labrum yellowish-white, the latter slightly tri-dentate at the apex, with the median tooth more pronounced than the others, and with three setigerous punctures on each side ; antennæ with the four basal joints golden green, the others rufescent ; head strigose ; prothorax short, the sides with decumbent white hairs ; elytra elongated, very little amplified behind, deplanated, closely punctured, the punctures dark-blue, and having each a broad, yellowish marginal band emitting three hook-like fasciæ ; the first one in the anterior part is short, reaching about the centre of the disk, the second, a median one, is not longer

than the first, but is produced at the tip into a short, curved, ramus reaching nearly the suture, the third one above the apical part is very short and blunt ; sides of the pectus with a whitish pubescence ; legs bristly.

Length, 13-14 ; width, 4-5^{m.m.}

Transvaal (Potchefstroom.)

Damaraland (Svakop River) teste Bohem.

C. MARGINELLA. Dej.

Spec. d. Coleopt. II. p. 417.

C. NITIDIPIES. Wallengr.

Entom. Tidsk. vol. II. p. 9, 1881.

C. MIMAX. Wallengr.

loc. cit. p. 10.

Metallic green on the upper part with the outer sides of prothorax and the pectus glowing red, or bronze with the underside dark-blue, legs green or glowing red ; basal joints of the palpi, outer side of mandibles, and the labrum yellowish white, the latter slightly tridentate at the apex, and with two setigerous punctures on each side ; mandibles short, antennæ with the four basal joints glowing red, the others rufescent ; prothorax short, with the outer sides setulose ; elytra elongated, nearly parallel, closely punctured with punctures dark-blue or green, and having on each side a moderately broad yellowish marginal band, throwing a very small blunt tooth in the anterior part, another one, a little longer than the first, and as often as not produced at the tip in a short diagonal ramus directed backwards, and a very obtuse one above the apical part, where the rounding of the elytra begins.

Length, 10-12 ; width, 3½-5^{m.m.}

A very variable species with a wide range. In the type form the median ramus emitted by the margin is often absent or but slightly produced, or again only the apical point of the ramus, looking then as a dorsal dot, is left.

Cape Colony (Port Elizabeth, Graham's Town, Bathurst), Transvaal (Boksburg).

Var. INTERSITA.

Bronze on the upper part, shape of the type-form, but lateral margin and teeth and rami broader and better defined.

Length, 10-12 ; width, 4-5^{m.m.}

Cape Colony (Riversdale, Enon.)

Var. INTEMPESTIVA.

Bronze on the upper part, shape of the type-form, elytra with the diagonal ramus complete, or incipient, sometimes with the apical spot only left, but the lateral margin narrow and disconnected behind with the postical one.

Length, 10-11 ; width, 4-4½^{m.m.}

Cape Colony (Bathurst, Seymour).

Var. INANIS. Wallengr.

Entom. Tidskr. vol. II., p. 10, 1881.

Metallic green or greenish bronze, shape of the type-form, but somewhat longer, elytra with a moderately broad marginal pale-yellow band, emitting three small teeth on each side, these teeth are very often quite rudimentary, although there is often a darker spot where they ought to have been, and there is no trace of the dorsal ramus.

Length, 12-13 ; width, 4-5½^{m.m.}

Natal (D'Urban) ; Transvaal (Johannesburg, Potchefstroom, Barberton).

C. LONGULA, Péring.

Trans. S. Afric. Philos. Soc., vol. IV., 1886, p. 68.

pl. 1, fig. 4.

Head and prothorax brassy, elytra dark-bronze, legs glowing red,

abdomen violaceous-blue ; basal joints of the palpi, outer sides of mandibles, and the labrum yellowish-white, this last part slightly tridentate at the apex, and with three setigerous punctures on each side, mandibles short, antennæ with the basal joints metallic, the others faintly rufescent ; prothorax short with the outer sides setulose ; elytra elongated, very slightly ampliased behind, dark, greenish-bronze, faintly, although closely, punctured, and having on each side a very broad, pale-yellow marginal band emitting a short, although acute, inward tooth in the anterior part, another one in the middle, longer than the first, and produced at the tip in a slanting narrower ramus, directed backwards, and a very obtuse one above the apical part, where the rounding of the elytra begins.

Although I considered at one time *C. longula* to be a variety only of *C. marginella*, I think it may be considered, provisionally, as a good species ; it differs from the type-forms and varieties, not only in having six setigerous punctures in the labrum, thus causing it to approximate to *C. pudibunda*, but the elytra are more elongated, and the marginal band is considerably wider, invading nearly the half of the discoidal part.

Length, 12 ; width, 5^{m.m.}

This species is one of the rarest in Collections ; I only know of three examples, two of which were collected in the Western part of the Cape Colony, and another, without record of the locality, in Chaudoir's collection under the name which, previous to seeing it, I had already selected.

Cape Colony (Fraserburg, Clanwilliam).

Sub-Gen. EURYODA.

SYNOPSIS OF SPECIES.

Elytra with three yellowish-white spots in the disk of each elytron, apical and postical margins narrowly edged with white.

guttipennis.

Elytra with two moderately large yellowish spots on each elytron.

quadri-pustulata.

Elytra with two minute yellowish spots on each elytron.

algoensis.

Elytra with a basal spot, and a broad marginal bi-ramose band of white hairs on each elytron.

tereticollis.

C. (E.) GUTTIPENNIS, Bohem.

Coleopt. Caffr. I, 1848, p. 13.

Sub-cylindrical, violaceous-black, but little shining on the upper part, pectus and legs brassy-green, external basal part of mandibles and palpi yellowish, with the ultimate joints of the latter black; labrum moderately large, bronze-black, tri-dentate at the apex, head strigose lengthways, with six foveæ between the eyes; prothorax sub-cylindrical, irregularly aciculated transversely; elytra elongated, more closely punctured behind than in the anterior part, impressed lengthwise on the disk, very dark-blue, moderately shining and with three small, whitish maculæ on each side, the first one immediately behind the central part of the disk, the second one, round like the first, near the apex, the third one oblong, but occasionally absent, is situated in the outer margin at about the middle of the length; the postical and apical margins are also narrowly edged with white, legs moderately long and setulose, brassy-green.

This species, which I have not seen, but a drawing of which was courteously sent me by Professor C. Aurivilius, of the Stockholm Museum, is doubtless very closely allied to, if not identical with, *quadripustulata*.

Length, 13; width, $4\frac{1}{2}$ m.m.

Caffraria meridionalis (teste Bohem.).

C. (E.) QUADRIPUSTULATA, Bohem.

Insect. Caffrar. I, 1848, p. 14.

pl. 1, fig. 7.

Sub-cylindrical, brassy-green, underside dark-blue, legs green, shining, external basal part of the mandibles, and basal joints of the palpi pale-yellow, labrum acutely five-dentate at the apex, and with two deep setigerous foveæ above the three median teeth, pale-yellow, slightly

infuscated at the base, head strigose, with four slight impressions between the eyes; prothorax finely shagreened, and but slightly impressed longitudinally in the centre and also transversely at the apex and base; elytra parallel in the male, a little amplified behind in the female, convex, narrowed diagonally at the apex, closely punctured, and with one longitudinal discoidal depression on each side, and also two conspicuous, round, yellowish spots, the first one at about the middle of the disk, in the discoidal depression, and the second one, slightly larger than the first, above the apex, but nearer to the outer margin than to the suture.

Length, 10-11; width, $3-3\frac{1}{2}^{\text{m.m.}}$

Transvaal (Potchefstroom); Zambezia.

C. (E.) ALGOENSIS, new spec.

Dark bronze with a coerulean tinge, violaceous-blue underneath, external part of the mandibles near the base, the two basal joints of the maxillary palpi, and the three labial ones pale-yellow, the apical ones violaceous, labrum five-dented, with two deep, setigerous foveæ above the three median teeth, black with a median yellow line in the male, totally black in the female, head strigose with four impressions between the eyes; prothorax cylindrical, hardly impressed transversely at the apex and base, or longitudinally in the centre; elytra with the outer sides parallel, a little convex, narrowed diagonally at the apex, closely punctured, with two longitudinal depressions on each side, the one near the suture the longest and best defined of the two, and also two yellowish dots, the first one at about the middle of the elytron and in the depression nearest to the outer margin, and the other one, close to the outer margin, where the narrowing of the elytra begins.

Length, $13-14\frac{1}{2}$; width, $4-5^{\text{m.m.}}$

Closely allied to *E. quadripustulata*; it is, however, larger, the colouring of the labrum differs; the elytra have two depressions on

each side instead of one, and the yellow patches are one-half the size of those of the former.

Delagoa Bay (Rikatla).

C. (E.) TERETICOLLIS. Bohem.

Ofvers. Vet. Ac. Förh., 1860, p. 5.

Oblong, moderately convex, unequally covered with white setæ; black, moderately opaque on the upper part, dark-blue underneath; prothorax and pectus with a brassy tinge; head closely punctured, plane on the upper part and with a few white hairs; labrum large, light-yellow, with a triangular black patch from the base to the centre, and five-dentate at the apex; prothorax twice as long as broad, sub-cylindrical; roughly and closely granulated, slightly pilose and with a brassy, smooth and very shining areolet on each lateral side; elytra closely and somewhat deeply punctured, with the outer margins brassy and shining, and with one basal median patch of white hairs on each elytron, and a lateral band of the same colour sending two very short blunt, tooth-like rami on the posterior part; this lateral band which is broader behind than in the anterior part, probably unites with the basal patch, but the white hairs connecting the two are worn off in the type; underside unequally covered with whitish hairs.

Length, $10\frac{1}{2}$; width, $3\frac{3}{4}^{m.m.}$.

Neighbourhood of Lake N'Gami.

I am indebted to Professor Cr. Aurivilius, of the Stockholm Museum, for a drawing of this remarkable species.

Sub-genus *PRODOTES*.

C. (P.) FATIDICA. Guér.

Rev. Zool. 1847, p. 4.

p. 1. fig. 6.

Very dark-bronze with a slightly iridescent tinge on the elytra,

dark-blue or greenish-black underneath; labrum short, convex, strongly tri-dentate at the apex, yellowish, broadly margined with black at the apex and narrowly on the sides, and with two deep setigerous punctures on each side of the median tooth and another one on the anterior outer angle; third and fourth joints of the antennæ very bristly; head closely plicated; prothorax short, quadrate, roughly shagreened and with a few, short, decumbent hairs on the outer sides; elytra slightly broader than the prothorax with sloping humeral angles, very convex, the outer sides nearly straight in the male, slightly amplified in the female, attenuated behind and singly rounded at the apical suture which is produced in a small sharp spine, broadly but not deeply punctured, and each elytron with two minute round yellowish spots along the suture, one in the anterior part, the other at about the middle, a moderately broad line running diagonally from the humeral angle to a little short of the apex, and a posterior supra-marginal one beginning at the third part of the elytron and reaching the apex; the dorsal diagonal line emits two very small hooks directed inwards, and also an outer one, the supra-marginal postical line has also a small inner hook near the tip; underside clothed with dense white hairs laterally.

Length, $15-16\frac{1}{2}$; width, $5-6^{m.m.}$

The general facies is more that of *Dromica* than of *Cicindela*. This very distinct species has no ally.

Natal (D'Urban), Matabeleland, Delagoa Bay (Rikatla), Transvaal (no exact locality.)

Gen. MEGALOMMA. Westw.

Annal. & Magaz. Natur. Hist. VIII., p. 203 (3).

PHYSODEUTERA. Lacord. JANSENIA. Chaud.

Catal. Collect. Cicindel., 1865, p. 55.

Mentum with an acute tooth, nearly as long as the depth of the notch; labrum long, convex, covering entirely the mandibles, three dentate in the middle, labial palpi shorter than the maxillary, the third one much thickened, the last one very short and truncated at the apex;

eyes very large; prothorax sub-cylindrical; elytra sub-parallel; legs slender, tarsi not grooved.

The thickened third maxillary palpi is the only distinct generic character which differentiates *Megalomma* from *Euryoda* of which they have, besides, the general facies; and the mentum tooth is not very much shorter.

The genus *Jansenia* has been created by De Chaudoir in order to include *Dromica Westermanni*, Schaum., an Indian species, and he has added to it *Cicindela chlorida*, from Malabar, and also, but without sufficient cause I think, *Physodeutera angusticollis*, which I prefer to retain in the genus *Megalomma*.

M. ANGUSTICOLLIS. Bohem.

Insect. Caffrar. vol. I, p. 15.

Head, prothorax, scutellum and humeral part of the elytra brassy, shining, elytra very dark bronze with the lateral margins greenish-blue; underside and legs dark-blue, the tibiæ red, basal joints of palpi pale-yellow; labrum yellow with six setigerous punctures in the anterior part, head strigose, prothorax cylindrical, slightly narrowed in front and behind, not grooved in the centre, finely shagreened; elytra a little broader than the prothorax at the base, with the sides nearly straight, but a little amplified behind in the female, rounded behind ending in a sharp spine on each side of the apical part of the suture, convex, closely punctured with a distinct row of broader green punctures on each side of the suture, dark-bronze, and each elytron with three sinuose, irregular, longitudinal black lines, a small yellowish dot at about the median part of the disk and two patches of the same colour behind, one, the largest, a little above the apical part, nearer to the margin than to the suture, and the other, a smaller one, at the very apical part.

Length, 10-11; width, 4^{m.m.}

Natal (D'Urban, Maritzburg, Frere), Transvaal (Potchefstroom, Lydenburg.)

M. LIMBIGERA. new spec.

Brassy, shining on the head and prothorax; labrum yellowish-white, sub-quadrate, very slightly unidentate, even in the female, at the apex, but slightly acute in the anterior angle, with one setigerous puncture on each side of the median tooth, and another on the outer angle; head and prothorax very metallic, hairless; elytra elongated, a little amplified behind in the female, dark-bronze, very faintly punctured, but with a row of broad, deep, bluish-green punctures on each side along the suture, and a broad yellowish marginal band sending a small short hook in the anterior part, a longer and blunter one at about the median part, and a small sinuation in the third, posterior part; the median ramus is, as often as not, produced in a slightly slanting, narrow dorsal ramus a little thickened at the tip, but sometimes wanting the connecting dorsal band, when there is only a small, round, post median dorsal spot left; underside glowing-red, abdomen greenish-blue, very slightly pilose.

In size and colouring this species resembles much *Cicindela marginella*.

Length, 10-12; width, 3-4^{m.m.}

Cape Colony (Port Elizabeth), Transvaal (Potchefstroom, Boksburg), Orange Free State (Parys), Natal (Frere).

Gen. MYRMECOPTERA. Germ.

Mag. Zool. Ins. A., 1843, t. 124.

Body oblongo-ovate, wingless; mentum with a very minute median tooth, labrum with five teeth; third articulation of the labial palpi very thick; head broader than the prothorax; antennæ with the four basal joints filiform, the other five compressed, sub-foliated, the last two more slightly dilated outwardly; prothorax long, narrow, nearly cylindrical, slightly narrowed at the base and apex, with a very fine median longitudinal groove, (but neither the transverse impressions nor the median groove are deep enough to give to the disk the appearance of being raised) and always finely and closely plicated

transversely ; elytra oblongo-ovate, not broader than the prothorax at the base, those of the male broadening slightly past the middle, and those of the female much more amplified, always convex, aculeated behind, with the suture raised and produced at the apex in two sharp spines, nearly always longer in the male ; legs very long and slender, tarsi and tibiæ grooved in the upper part, the three basal joints of the fore tarsi of the male dilated and ciliated underneath.

De Chaudoir has included in the genus *Dromica*, Dejean, the *Myrmecoptera* of Germar, and *Cosmema* of Boheman. There is no distinctive generic character between the three, except the dissimilarity in shape of the antennæ, and also the general facies.

Even then, apart from the general facies there is a strong connecting link between the *Myrmecoptera* (as I understand them) and the *Dromica*, in *D. Clathrata* with thickened antennæ, and *D. pseudoclathrata* ; in the last-named species these organs are as much subfoliated externally as in any other *Myrmecoptera*.

I propose, however, to retain the three genera and to include in :

Myrmecoptera. All the species with thickened antennæ, and long, narrow prothorax plicated transversely : type *M. Bertolonii*.

Dromica. A. Species with thickened antennæ and quadrate prothorax with two protuberances on the disk : type *D. pseudoclathrata*.

B. Semi-filiform antennæ and quadrate prothorax with two protuberances on the disk. *D. tuberculata*.

C. Antennæ very filiform.

Cosmema. Bodies very slender, and prothorax sub-cylindrical, impressed transversely in front and behind, but without any protuberances on the disk, the two sides of which are only very slightly raised. *C. coarctata*.

The Cicindelidæ included in these three genera are wingless insects, extremely agile, which, in spite of their livery, adapt themselves wonderfully well to their surroundings. From all accounts they do not seem to be as gregarious as *Cicindela*, and are occasionally met with in open glades, stubble or paths ; they run with great rapidity, and are captured with difficulty.

Myrmecoptera seem to be occasionally met with in Natal and the Southern part of the Transvaal; their habitat extends, however, from the 24th of lat. S. to Abyssinia; the South-African species are more numerous between the 26th and 15° lat. They have not been recorded from Great Namaqualand, but are found in Ovampoland, in the vicinity of the Limpopo, on the banks of the Zambeze, and in the provinces of Mozambique and Delagoa Bay.

Outside the South-African limit two specimens of this genus are met with in Abyssinia; one in Somaliland; one in Zanzibar (Lake Jipe); one in East Africa (Mamboia); and ? one in Angola.

I divide the South African species into four different sections:

1. Body slender, elytra with a continuous white supra-marginal band, and a dorsal patch : *tenella*.
2. Body slender, elytra with a more or less interrupted supra-marginal band, and with dorsal markings : *spectabilis*.
bi-lunata, *Saundersi*.
limbata, *Erikssoni*.
3. Body less slender, elytra costate in the anterior part, and shagreened in the posterior part, with no white marking, or with an apical white patch : *algoensis*, *Junodi*, *Bertoloni*.
foveolata, *costata*, *Limpopoiana*.
4. Body less slender, elytra costate, foveated or deeply pitted, one white band at the base on each side of the suture, and one apical, sutural, or supra-marginal patch : *polyhirmoides*, *Mauchi*.

SYNOPSIS OF SPECIES.

A. Elytra without any raised lines.

Elytra deeply pitted, outer margin with a continuous yellow band, and a round post median spot on each side of the disk. *tenella*.

Elytra deeply pitted, outer margin with a white humeral band, a median spot, and an apical, long, narrow band, disk with a small round spot. *foveolata*:

Elytra deeply pitted, with a supra humeral broad white patch, and a post median marginal band reaching the apex, disk with a transverse patch uniting with the marginal band. *spectabilis*.

Elytra deeply pitted, each with a small sub-humeral spot, a

marginal apical narrow band, and a post median arcuated dorsal patch in the shape of a crescent with points downwards.

limbata.

Elytra deeply pitted, with no humeral spot, but with a narrow, white marginal post median band, and a very narrow dorsal patch.

Saundersi.

Elytra deeply pitted, with a long sub-humeral band, a narrow one reaching the apex, and a post median arcuated dorsal patch shaped like a crescent with the points upwards.

bi-lunata.

Elytra narrowly and closely pitted, no humeral spot, but with a broad, post median yellowish-white marginal band, and a diagonal discoidal patch.

Eriksoni.

Elytra broadly pitted in the anterior part, and coarsely shagreened behind, with no lateral or dorsal markings.

Junodi.

Elytra broadly pitted in the anterior part, and coarsely shagreened behind with an elongated whitish patch near the apex.

Algoensis.

B. Elytra with raised lines.

Elytra very broadly pitted in the anterior part, and shagreened behind, each with five raised lines, and an elongated whitish-yellow patch near the apex.

Bertolonii.

Elytra very broadly pitted in the anterior part and shagreened behind, each with five raised lines, and no whitish-yellow patch near the apex.

fossulata.

Elytra broadly pitted in the anterior part, and shagreened behind, each with four raised lines and an elongated whitish patch near the apex.

costata.

Elytra broadly pitted in the anterior part, and shagreened from past the middle, each with one raised line near the suture, and an elongated whitish patch near the apex.

limpopoiana.

Elytra broadly pitted to a short distance from the apex, and each one with five raised lines, a short white line at the base close to the scutellum, and a sutural elongated patch at the apex.

polyhirmoides.

Elytra pitted, each one with five raised lines, a short yellowish line at the base, close to the scutellum, and an elongated marginal patch near the apex.

Mauchi.

M. TENELLA, new spec.

Black, almost opaque on the upper part, prothorax very cylindrical, long, closely and finely plicated obliquely, with the folds very narrow ;

elytra oblong, a little amplified past the middle, with the suture produced apically in two long, sharp spines; they are closely pitted and have on each side a broad, continuous yellowish supra-marginal band reaching from a little below the shoulder to the apex, and a round spot of the same colour on the disk at a little past the median part; legs and underside reddish with a green metallic tinge.

Length, 8; width, 2^{m.m.}

I have seen only one male example of this pretty species, which was captured near Barberton (Transvaal).

M. FOVEOLATA. Péring.

Trans. S. Afr. Phil. Soc., 1888, vol. IV., p. 71.

Violaceous-black, moderately shining on the upper part, much more so underneath; labrum yellowish-white, edged with black, head strigose; prothorax very long, cylindrical, closely plicated obliquely; elytra deeply pitted with a row on each side of deeper golden foveæ at a short distance from the suture, and reaching from the base to about the middle, narrow, a little amplified past the middle with the suture produced apically in two long acute spines, and having on each elytron a supra-marginal narrow band below the shoulder, another one in the middle, and a third one near the apex; legs metallic blue-black.

Length, 13; width, 4 $\frac{1}{2}$ ^{m.m.}

The type has no dorsal markings, but a male in the British Museum has a small round dot on the post median part of each elytron, and the sub-humeral supra-marginal band is not so well defined as in the type.

? Damaraland. Natal (D'Urban), teste Herr Guenzius.

M. SPECTABILIS, new species.

Dark metallic blue-black, moderately shining on the upper part; labrum white with the apical and basal part narrowly edged with black; head strigose; prothorax long, cylindrical, closely plicated obliquely;

elytra very elongated, deeply pitted, very slightly amplified past the middle (male) with the apical sutural part produced in two long, sharp, teeth, and having on each elytron a supra-humeral broad, whitish patch, and another one on the post median part of the disk which unites with a broad supra-marginal band reaching the apex; underside steel-blue with a greenish iridescence.

Length, 15; lat., 3^{m.m.}

Zambezia.

M. LIMBATA, Bertol.

Diss. Ins. Coleopt. Bologn., 1858, p. 14, t. 1.

Dark metallic blue-black, moderately shining; labrum black in the centre and yellow on the outer sides, head strigose; prothorax cylindrical, plicated obliquely; elytra deeply pitted, amplified past the middle with the suture produced at the apex in two short spines, and having on each above the outer margin a sub-humeral small dot, and a narrow straight band reaching from past the middle to the apex as well as a post median dorsal patch in the shape of a crescent, the two points of which are directed towards the apex.

Length, 17^{m.m.}

Mozambique, De Chaudoir's Collection.

M. SAUNDERSI, Chaud.

Catal. Collect. Cicind. 1865, p. 51.

Dark metallic blue-black, moderately shining; size and facies of *M. limbata*, and coloured alike; elytra with the apical suture ending in two long spines, no sub-humeral white spot, the apical supra-marginal band is the same shape as that of *limbata*, but the dorsal patches are very small and round.

The two examples in De Chaudoir's Collection are males.

Delagoa Bay (teste De Chaud.)

M. BI-LUNATA. Dohrn.

Stett. Ent. Zeit. vol. XLIV., 1883, p. 278.

Dark metallic blue-black, almost opaque on the upper part; head strigose, labrum of male white with the base and apex narrowly edged with black, that of the female black and edged laterally with white, head strigose; prothorax cylindrical, plicated obliquely; elytra of the male more deeply pitted than those of the female, each with a median series of deeper foveæ with a golden tinge reaching from the base to a little past the middle, apical sutural teeth of the male very long and sharp, those of the female very short, very little amplified from past the middle in the male, much more in the female and with each elytron having a supra-marginal broad white band reaching from below the shoulder to the middle in the male, but shorter in the female, another one reaching from past the middle to the apex, and also a distinct crescent-shaped post median dorsal patch, the points of which are directed towards the base.

Length, 15-18; width, 4-5^{m.m.}

Country between Limpopo and Zambeze (T. Ayres), Zambeze River (Dr. Bradshaw).

M. ERIKSSONI. Péring.

Trans. South. Afric. Philos. Society, 1892, p. 5.

Brassy-green, shining, with the underside steel-blue; head strigose, labrum entirely black; prothorax, long, cylindrical, finely plicated obliquely; elytra very closely and narrowly pitted, with a faint series of broader spots on each side of the suture, a little amplified past the middle with the suture ending in two short spines at the apex, and each one having at about the middle of the disk a diagonal yellowish-white patch directed towards the outer margin where it coalesces with a broad supra-marginal band of the same colour reaching from past the middle to the apex. Male unknown.

Length, 14-15 ; width, 4^{m.m.}

Allied to *M. nobilitata*, Gerst., from Lake Jipe.

Northern Ovampoland.

M. JUNODI. Péring.

Trans. S. Afric. Philos. Society, 1892, p. 95.

Metallic blue-black, shining on the upper part; labrum yellow with a black basal patch in the male, that of the female black with the outer sides narrowly edged with white; head strigose; prothorax very long, slender, cylindrical, finely plicated obliquely; elytra deeply pitted from the base to about past the middle, and less deeply in the posterior part, and having a row of deeper foveæ with a golden tinge reaching from the base to about the middle, the apical part of the suture produced in two very long, sharp spines in both sexes, but those of the male are the longest, no white patch on the margin or disk; underside steel-blue, very shining.

Length, 18-20; width, 4 $\frac{5}{8}$ ^{m.m.}

From Delagoa Bay—20 miles from Lourenço Marques. Seen a female from that locality the labrum of which is entirely black.

M. ALGOENSIS.

Metallic blue-black, shining on the upper part; labrum totally black (female); head strigose, prothorax very long, slender, cylindrical, finely plicated obliquely; elytra deeply pitted from the base to about the middle, but less deeply in the posterior part, and having a row of deeper foveæ with a golden tinge reaching from the base to about the middle: apical part of the suture produced in two very sharp, long spines, a white elongated patch on the posterior margin.

Length, 19; lat., 4 $\frac{1}{2}$ ^{m.m.}

Differs only from *M. Junodi*, in having an apical marginal

whitish band, which is entirely absent in the 13 examples of *Junodi*, which I have examined.

From Rikatla (Delagoa Bay).

M. BERTOLONII. Thoms.

Revue. Zool., 1856, p. 482.

Lacord. Gen. Atl. t. 1, f. 4.

Metallic black on the upper part, shining dark-blue underneath; head strigose, labrum black edged with yellowish-white outwardly; prothorax cylindrical but not very long, plicated obliquely; elytra much amplified past the middle, acuminate behind with the apical part of the suture produced in two moderately long, sharp spines, deeply and broadly foveated from the base to past the middle, strongly shagreened behind, and each one having five slightly sinuated raised lines, the supra-marginal of which is the longest and reaches to past the middle, and also a small elongated, often inconspicuous, yellowish-white spot near the apex.

M. FOSSULATA. Wallengr.

Entom. Tidskr. vol. II., 1881, p. 11.

It is with some doubt that I place here this species which I know from the description only; if it is a true *Myrmecoptera* it will prove very probably identical with *M. Bertolonii*, lacking only the apical yellowish-white marginal marking on the elytra: on the other hand no S. African *Myrmecoptera* can be said to have the dorsal part of the elytra moderately depressed (dorso subplano) but in *Dromica* the dorsal part of the male is certainly depressed.

Bronze-black; antennæ dilated outwardly with the apical points attenuated; labrum with the margins white but not the apex; base of mandibles whitish; palpi yellow, black at the apex; head and prothorax closely but not very rugosely plicated, and both with a moderately shining dark-blue tinge, the prothorax slightly grooved in the middle, impressed obliquely in front and behind, with the disk hardly

raised; elytra depressed in the dorsal part, each with five raised lines (costæ), the said lines somewhat obliterated past the middle, with the intervals closely fossulated, and coarsely punctuated towards the apex; under-part of the body, especially the abdomen, dark-blue; legs brassy-black.

Length, 18^{m.m.}

¹Captured near Christiana (Transvaal), teste Wallengren.

M. COSTATA. new species.

pl. II, fig. 6.

Black with brassy tinge on the upper part, steel-blue underneath; head strigose, labrum black with outer edges yellow; prothorax plicated obliquely, cylindrical but not very long; elytra amplified past the middle, acuminate behind, with the apical sutural spines short but acute, deeply foveated from the base to a little past the middle, coarsely shagreened from there to the apex, and each one having four slightly wavering raised lines reaching only to a little past the middle, and also a conspicuous marginal, short, white band near the apex.

The foveæ of the anterior part of the elytra are not so broad as those of *M. Bertolonii* to which it is however closely allied, but *Bertolonii* has five raised lines on each elytron, whereas *costata* has only four.²

Male unknown.

Marico and Potchefstroom (Transvaal).

M. LIMPOPOIANA. new spec.

Black with a brassy tinge, moderately shining on the upper part, steel-blue underneath; head strigose, labrum quite black or

¹Mr. Wallengren has no longer the typical example of *M. fossulata* in his possession, but he writes that so far as he remembers, the facies is that of *M. costata*, as figured in plate II., fig. 6.

²The insect figured in plate II. should have four lines on each elytron instead of two.

black in the centre and broadly edged with yellow; prothorax plicated obliquely, long, cylindrical; elytra amplified past the middle, with apical spines of the suture very short, deeply foveated from the base to the middle with the postical part closely shagreened; and each one has a slightly raised line, parallel to the suture and reaching the middle, and also an inconspicuous, short, narrow white line near the apex.

Length, 21; width, $6\frac{1}{2}$ m.m.

I have not seen the male of this species.

Middle Limpopo (Neighbourhood of Fort Tuli).

M. POLYHIRMOIDES. Bates.

Ent. Month. Magaz., 1892, p. 286.

M. HOLUBI. Dohrn.

Stett. Ent. Zeit. XLII., p. 318.

Black with a brassy tinge, dark-blue underneath; head strigose, labrum black with a broad white central patch in the male, and a narrow line in the female; prothorax not very long, cylindrical, plicated obliquely; elytra oblongo-ovate, very little amplified past the middle, apical sutural spines of the male long and sharp, those of the female very short, almost obtuse; they are broadly foveated from the base to three-fourths of their length, and closely shagreened in the postical part; each one has five slightly sinuated raised lines edging the foveae (which have a bright golden tinge) also a narrow basal white band parallel and close to the suture, not reaching the median part of the elytron, and an elongated apical patch of the same colour extending on both sides of the suture.

Length, 21-22; $5-6\frac{1}{2}$ m.m.

Middle Limpopo (neighbourhood of Fort Tuli).

M. MAUCHI. Bates.

Ent. Month. Magaz., 1872, p. 287.

M. OATESI. Westw. Oates' Matabeleland, 1881, p. 359, pl. G. fig. 5.

Black, opaque on the upper part, shining underneath; head strigose,

labrum black with a yellowish median band; prothorax elongated, sub-cylindrical, plicated transversely, the longitudinal median groove with white tomentum; elytra amplified past the middle with the apical sutural spines short, deeply and closely pitted; on each one are five raised, narrow lines disappearing before reaching the apex, and also a basal, very short, yellowish-white band, and an elongated supra-marginal patch of the same colour close to the apex.

Length, 24-25; $7\frac{1}{2}$ -8^{m.m.}

Middle Limpopo, Zambeze River.

The sub-foliation of the antennæ and the shape of the prothorax as delineated in Oate's Matabeleland, are defective.

Gen. DROMICA. Dejean.

Spec. II, 1826, p. 434.

Body oblongo-ovate, wingless, labrum five-dented; mentum with a very small median tooth, third articulation of the labial palpi thickened; head slightly broader than the prothorax; antennæ with the first four basal joints filiform and the other seven either compressed or sub-foliated or filiform; prothorax short, quadrate, deeply impressed in front and behind and grooved in the centre, with the two sides of the disk produced in a long tubercle; elytra oblong, as broad as the prothorax at the base, those of the male a little depressed and nearly parallel, the female's convex and nearly always amplified past the middle, suture raised and ending in two apical moderately sharp spines in the male, nearly obtuse in the female; legs long and slender, tarsi and tibiæ not grooved in the upper part, the three basal joints of the fore tarsi of the male dilated and ciliated.

Dromica is met with in the Cape Colony (Seymour, Graham's Town, East London), in Natal, Zululand, the Transvaal, Middle Limpopo and Mozambique.

So far as I am aware species of this genus have not been captured outside the South-African limit.

SYNOPSIS OF SPECIES.

A. Antennæ compressed (a) or sub-foliated (b).

a. Elytra with five raised lines on each side reaching from the base to two-thirds of the length with intervals broadly pitted, very rugose behind and having a small elongated or rounded whitish spot on each sub-apical outer margin. *clathrata.*

b. Elytra with six raised lines on each side reaching from the base to two-thirds of the length, intervals reticulated, not foveated, and with an elongated whitish patch on each sub-apical outer margin. *pseudo-clathrata.*

Elytra with five raised lines reaching from the base to two-thirds of the length with the intervals very broadly foveated, and having on each side at a little distance of the suture a broad white apical band. *grandis.*

B. Antennæ filiform.

Elytra with five raised lines on each side, the two dorsal ones shorter than the others, the first, third and fourth uniting above the apex, and having on each side a supra-marginal, apical white patch, often very indistinct. *sculpturata.*

Elytra with five raised lines on each side, the first one shorter than the third and fourth, the wing covers of the female very convex, the supra apical marginal patch sometimes indistinct. *Natalica.*

Elytra with four raised lines on each side, reaching to a short distance from the apex, and having on each side a small humeral white spot, a median one and an apical band of the same colour. *octocostata.*

Elytra having on each side a short basal ridge near the suture, a dorsal one consisting of four disconnected oblique ridges, a supra-marginal uninterrupted one reaching from the shoulder to two-thirds of the length, and the outer margin with a small humeral whitish dot, often wanting, another one of the same size in the median part, and a very fine sub-apical line of the same colour. *tuberculata.*

Elytra as in *tuberculata*, the dorsal ridges more raised, outer margin with a small sub-humeral yellowish-white round dot, a larger one in the median part and a broad band near the apex. *var. carinulata.*

Smaller than *tuberculata* and *carinulata*; elytra as in *tuberculata*, outer margin with a sub-humeral yellowish-white band, in both sexes, a broad spot in the centre, and an elongated apical band. *var. Transvaalensis.*

Elytra as in *tuberculata*, but with the outer supra-marginal ridge sinuated, but reaching from the shoulder to the apex, outer margin with a post median dot and an elongated sub-apical whitish band.

var. acuminata.

Elytra as in *tuberculata*, but with a white broad uninterrupted supra-marginal ridge reaching from the shoulder to the apex

albivittis.

Elytra with an uninterrupted raised line near the suture, a dorsal one three times interrupted, a second dorsal one consisting of three disconnected oblique ridges, and a continuous external one reaching from the shoulder to near the apex.

immaculata.

D. CLATHRATA. Klug.

Jahrb. 1, p. 40, 1834.

D. GIGANTEA. Brème. Annal. Franc., 1844, p. 289, pl. 7, fig. 3.

Metallic black, with a greenish and golden tinge on the upper part, dark, metallic blue underneath; head strigose, antennæ with the seven apical joints compressed and sub-dilated outwardly; labrum black in both sexes, with a median, narrow, yellowish longitudinal band; prothorax quadrate, plicated, the plication sinuated, deeply impressed in front and behind, grooved in the centre, the disk produced in two long protuberances; elytra elongated: those of the male nearly parallel, and much depressed, of the female very convex and much amplified a little past the middle, suture raised and ending in two very short spines, (one on each side); on each elytron are five, slightly sinuose, raised lines reaching from the base to two-thirds of the length (the two external ones reaching a little further than the others) the intervals of which are foveated, with the foveæ reticulated, the apical part is very rugose, and has a marginal, more or less rounded white patch, which is often very indistinct, or entirely wanting; legs, very dark-blue with a bronze tinge.

Length, 17-23; width, 5-8^m.

There can be no doubt as to the identity of *D. gigantea* with

D. clathrata, and the typical *clathrata* of De Chaudoir's, represented by one example only in his collection, is a small male specimen in which the outer, or fifth costa is well defined, and the postical dot is more elongated than usual; this postical whitish patch is often reduced to a mere dot, and even disappears altogether in specimens captured in one locality and at different times of the year. The compression and dilatation of the joints of the antennæ vary also; in some examples before me from Potchefstroom (Transvaal), they are almost sub-foliated, although always in a lesser degree than in the two species *pseudo-clathrata* and *grandis*, and also sub-filiform or at least not much dilated, in both sexes.

Transvaal (Klerksdorp, Boksburg, Potchefstroom, Rustenburg), Mozambique (teste Bertoloni), Delagoa Bay, Lake N'Gami (teste Chaudoir).

D. PSEUDO-CLATHRATA. new species.

Metallic black with a greenish, golden tinge on the upper part, dark metallic blue underneath; antennæ with the seven apical joints compressed and sub-foliated outwardly; labrum black with a narrow median, yellowish longitudinal band, head strigose; prothorax quadrate, grooved in the centre, deeply impressed in front and behind, the disk produced in two long protuberances, plicated transversely; elytra ovate, very convex, amplified at a little past the middle, suture ending in two short spines on each side, each elytron with six raised lines not sinuose, and of equal length reaching from the base to three-fourths of the length, (the outer one disappears below the humeral angle), the intervals between these raised lines are closely plicated but not foveated, the posterior part is very rugose and has on each side a long, marginal, white patch which does not extend as far as the apex; legs dark-blue with a bronze tinge.

Length, 25; width, 8^{m.m.}

Allied to *clathrata*, but the joints of the antennæ are much more compressed, the elytra are not so suddenly amplified past the middle, and are therefore more ovate, the raised lines, six in number

instead of five, are nearly straight instead of being sinuose as in *clathrata*, the reticulation of the interstices is different, and the suture is distinctly bi-spinose on each side. Male unknown.

Transvaal (no exact locality).

D. GRANDIS. new species.

Brassy-black, the foveæ of the elytra with a golden sheen; head strigose, labrum black with a median, narrow, yellowish band in both sexes; antennæ with the exception of the first four basal joints sub-foliated; prothorax quadrate, as broad as the head, short, deeply impressed in the anterior and posterior parts, plicated, with the folds sinuated, and with the disk produced in two long protuberances; elytra of the male nearly parallel, depressed, those of the female oblong, amplified in the middle and gradually narrowed behind, the sutural apical spines longer in the male than in the female, each elytron with five slightly raised lines reaching from the base to two-thirds of the length, the intervals between the lines very broadly foveated, the foveæ reticulated, and the posterior part very rugose; on each side of the posterior part, and reaching about from the apex to the dorsal costæ, is a long, broad, parenthesis-like white band.

Length, 19-24; width, 6-8^{m.m.}

Allied to *D. clathrata*, but easily distinguished owing to the sub-foliated antennæ, and the different shape of the apical markings of the elytra; the elytra of the female are also more gradually amplified from the base to the middle, the alveolæ are much broader and deeper, and the outer line, a very narrow one, runs quite close to the fourth, instead of being broadly separated as in *D. clathrata*.

I have also received two smaller examples of this species from Barberton (Transvaal), in which the apical white patch is not discernible; I believe these examples to be immature.

Middle Limpopo (Fort Tuli), Transvaal (Barberton).

D. SCULPTURATA. Bohem.

Insect. Caffrar. part I, 1848, p. 17.

D. BIS-BICARINATA. Chaud.

Rev. Zoolog., 1864, p. 10.

D. QUADRICOLLIS. Chaud.

Rev. Zool., 1864, p. 37.

Brassy-black, shining; head strigose, antennæ filiform, labrum yellowish-white, narrowly edged with black in both sexes; prothorax quadrate, strongly impressed in front and behind, grooved in the centre, and with the disk produced in two elongated protuberances; elytra very much depressed, those of the male nearly parallel, with the two sutural apical spines short, those of the females amplified past the middle, with the sutural part slightly divaricating and blunt; they are covered with closely set, somewhat reticulated, moderately deep punctures, and have on each side five raised lines, the second and third, running close to each other coalesce near the base, reach a little beyond the middle where they unite, and the first, fourth and fifth reach to a little distance short of the apex where they also unite; on each side of the outer apical angle is a white, elongated, supra-marginal, more or less conspicuous patch, sometimes entirely absent. Legs bluish-black, with the base of the tibiæ and at times the hind shanks slightly reddish.

Length, 19-22; width, 4-8^{m.m.}

Natal (Frere).

D. bis-bicarinata is undoubtedly identical with *D. sculpturata*. Chaudoir himself admits that the only difference between the two is the colouring of the basal part of the tibiæ.

D. quadricollis, which I have closely examined, does not seem to me to differ from *bis-bicarinata* beyond having in the female a little more sideways infuscated labrum, in one of the males (from Damara-land) the second and third costæ are very short, but the same thing occurs also in males of *D. clathrata* captured in one locality.

D. NATALICA. new species.

Colouring and size of the preceding species, the female, however, of a more light-bronze sheen, head and prothorax similar; elytra of the male elongated, plane on the back, with the apical spines moderately long, sharp, and straight, those of the female very convex, the apical part hardly divaricating and without any spines, set with broad, somewhat reticulated, deep punctures, and having on each side five raised smooth lines; the first one near the suture does not reach the base, and disappears after the median part of the disk, the two discoidal ones unite at a short distance from the base, run parallel to one another and reach about to three-fourths of the length, and the fourth and fifth stop short of the apex; on each side is an elongated white patch, sometimes missing.

Length, 19-22; width, 4-8^{m.m.}

Although the male, or at least what I conjecture to be the male, is hardly discernible from *sculpturata*, the only difference being in the first dorsal carina very short in the anterior part, and the two dorsal ones which are longer than in *sculpturata*, the female is very distinct owing to the convex form of the elytra, the first dorsal carina is also not so well defined, nor does it reach so far towards the apex.

Natal (D'Urban).

D. OCTOCOSTATA. Chaud.

Rev. Zool. 1864, p. 38.

Brassy with a golden tinge; head strigose, labrum black with a median yellowish band; prothorax irregularly plicated, quadrate, with the discoidal protuberances much raised; elytra oblongo-ovate, convex, covered with broad punctures, and the apical, sutural parts produced in very sharp spines; they have on each side four acute raised lines placed at the same distance from one another, and disappearing before reaching the apex, on the outer margin there is a sub-humeral white spot, a post median one, rounder than the sub-humeral

spot, and sometimes missing, and a moderately narrow line of the same colour near the apex.

Length, 16-18 ; width, 7^{m.m.}

De Chaudoir's types have no post median marginal spots, but I have seen two examples in the British Museum in which these markings are well defined.

Delagoa Bay.

D. TUBERCULATA. Hope.

Animal Kingdom, 1, 1832, p. 265, pl. 29, fig. 6.

Brassy, moderately shining on the upper part, antennæ and under-side cyaneous ; head strigose, labrum of the male yellowish-white narrowly edged with black, that of the female black with a median yellowish band ; prothorax irregularly plicated, quadrate with the discoidal protuberances much raised and the posterior angles very acute ; elytra oblong, not much depressed on the upper part in the male, convex in the female, acuminate behind, with the sutural apical part a little divaricating and slightly spinose ; they are covered with closely set punctures, and have on each side a short ridge running from the base to one-fourth of the length, a dorsal one consisting of four oblique disconnected ridges and an external uninterrupted one above the outer margin and reaching from the shoulder to three-fourths of the length ; in the outer margin there is a small whitish dot placed at about the middle, and a small narrow line of the same colour near the apex ; legs cyaneous, with the tibiæ somewhat infuscated.

Length, 15 ; width, 5^{m.m.}

Cape Colony (Seymour).

D. TUBERCULATA.

Var. CARINULATA. Chaud.

Bullet. Mosc. 1860, IV., 306.

Brassy, or brassy-black, moderately shining on the upper part,

cyaneous-black underneath ; head strigose, labrum of the male yellowish-white narrowly edged with black, that of the female black with a median yellowish band ; prothorax very quadrate, irregularly plicated, the discoidal protuberances much raised, and the posterior angles very acute ; elytra oblong, somewhat depressed on the upper part in the male, those of the female very convex, acuminate behind, with the sutural apical part a little divaricating and slightly spinose ; they are covered with closely set punctures and have on each side a short ridge running from the base to one-fourth of the length, a dorsal one consisting of four oblique disconnected ridges, and an external uninterrupted one above the outer margin and reaching from the shoulder to three-fourths of the length ; in the outer margin there is a sub-humeral white dot, a broad one a little past the middle, and an elongated band of the same colour near the apex ; the sub-humeral dot is wanting in the female examples which I have examined.

Extremely near *tuberculata* ; the carinæ of the elytra are more raised and the marginal dot and patches larger and more clearly defined.

Length, 15-17 ; width, $4-5\frac{1}{2}$ ^{m.m.}

Natal (D'Urban) ; Zululand (Eshowe).

D. TUBERCULATA.

Var. TRANSVAALENSIS.

Brassy or coppery-green, very shining, underside dark-blue, head strigose, labrum yellowish-white, narrowly edged with black in both sexes ; prothorax irregularly plicated, quadrate with the protuberances of the disk much raised and the posterior angles very acute ; elytra oblong, hardly depressed on the upper part in the male, convex but not much amplified in the female, acuminate behind, the male with two long, sharp sutural spines, the female's are nearly blunt ; they are covered with closely set punctures, and have on each side a short basal ridge, a dorsal one consisting of four oblique disconnected ridges, and an external uninterrupted one above the outer margin reaching from the shoulder to a little past the middle ; in the outer margin there is a long sub-humeral yellowish-white band, a broad

median patch, and a band of the same colour near the apex ; the tibiae are slightly infuscated.

Length, 15 ; width, 5^{m.m.}

Smaller than *tuberculata* and *carinulata*, and with the marginal markings very well defined ; the sub-humeral band is very distinct in both sexes.

Transvaal (Lydenburg).

D. TUBERCULATA.

Var. ACUMINATA. Chaud.

Rev. Zool. 1864. p. 40.

Brassy or brassy-black, underside dark-blue ; head strigose, labrum yellowish-white narrowly edged with black ; prothorax irregularly plicated, quadrate, with the protuberances of the disk much raised ; elytra oblong, hardly depressed in the male, acuminate behind, the male with two long sutural spines ; they are covered with closely set punctures, and have on each side a short basal ridge, a dorsal one consisting of four oblique disconnected ridges, and an external one reaching from the shoulder to the apex ; in the outer margin there is a median yellowish-white patch, and an elongated band of the same colour near the apex.

Closely allied to the preceding variety ; lacks, however, the sub-humeral whitish band, and the external ridge reaches the apex.

Length, 15 ; width, 5^{m.m.}

D. ALBIVITTIS. Chaud.

Catal. Collect. 1865. p. 50.

Brassy, shining, dark-blue underneath ; head strigose, labrum of the male whitish and narrowly edged with white, that of the female more broadly edged with black, or having sometimes a lateral yellowish band on each side and one in the middle ; prothorax irregularly plicated, quadrate, with the discoidal protuberances much raised, and

the posterior angles very acute ; elytra oblong, not much depressed in the male, a little more convex in the female, acuminate behind, with the apical sutural part very spinose in the male, and less so in the female ; they are covered with closely set punctures, and have on each side a short basal ridge, a dorsal one consisting of four oblique disconnected ridges, and a broad, uninterrupted, external, white supra-marginal ridge reaching from the base to the apex.

Length, 14-16 ; width, $5-5\frac{1}{2}^{m.m.}$

Transvaal (Lydenburg, Barberton).

D. IMMACULATA. Péring.

Trans. S. Afric. Phil. Soc., vol. IV., 1888, p. 70.

pl. II, fig. 7.

Brassy, moderately shining, underside dark-blue ; head strigose, labrum (female) black with a median yellowish band ; prothorax irregularly plicated, quadrate, with the protuberances of the disk much raised, and the posterior angles acute ; elytra oblong, convex, closely and deeply punctured, suture divaricating at the apex and obtuse ; they have each a narrow raised line parallel to the suture and nearly reaching the apex, a dorsal one interrupted as it reaches the middle and continued by a short line, a second discoidal one formed by four disconnected oblique ridges and an external, continuous supra-marginal one reaching nearly from the shoulder to the apex.

Length, 18 ; width, $6^{m.m.}$

A female example has a very small, almost obsolete, median yellowish dot in the lateral margin.

Length, 18 ; width, $6^{m.m.}$

Cape Colony (Graham's Town).

Gen. COSMEMA. Bohem.

Insecta Caffrariæ, 1848, Part. I, p. 19.

Body very slender, wingless, oblong, convex, labrum five dentate

(the teeth more pronounced in the female), mentum with a very minute median tooth, third articulation of the labial palpi thickened; head very slightly broader than the prothorax, antennæ filiform; prothorax short, sub-cylindrical,¹ slightly impressed transversely in front and behind, grooved in the centre, with the two sides of the upper part of the disk a little raised, and finely plicated transversely; elytra elongated, nearly parallel in the male, amplified past the middle in the female, much acuminate behind and generally ending in two sharp spines, very long and slightly divaricating in the male, much shorter in the female; legs long and very slender, anterior tibiae and all tarsi finely grooved on the upper part, the three first joints of the fore-tarsi of the male dilated and ciliated.

Cosmema occurs in the Eastern part of Cape Colony (Port Elizabeth, Sunday River, Albany, Graham's Town), Natal (D'Urban, Maritzburg), Zululand (Eshowe), Transvaal (Parys, Potchefstroom, Rustenburg, Boksburg, Barberton, Lydenburg), British Bechuanaland, Lake N'Gami, and Delagoa Bay. This genus has not, to my knowledge, been found in the Western part of Cape Colony.

Besides the South-African species, three more have been described: one from East-Central Africa (Mamboia), one from the river Quango, and one from Somaliland.

SYNOPSIS OF SPECIES.

A. Outer margins of elytra with yellowish-white, interrupted lines or spots:

Elytra depressed, shagreened, each with three narrow yellowish-white supra-marginal bands in the male, two only in the female.

tri-notata.

Elytra deeply pitted, each with a supra-marginal, narrow, yellow band reaching from the shoulder past the middle, and a postical one.

ambitiosa.

Elytra deeply pitted, each with three oblong, yellow, supra-marginal spots.

sex-maculata.

Elytra deeply pitted, each with three very large, rounded yellow supra-marginal spots.

citreo-guttata.

¹The prothorax of *C. tri notata* is quadrate.

- Elytra finely shagreened, each with three yellowish-white supra-marginal oblong yellow patches, the humeral one the smallest of the three. *Gruti.*
- Elytra finely shagreened, each with two supra-marginal, yellowish-white spots and a thin postical band. *elegantula.*
- Elytra finely shagreened, each with a median supra-marginal dot and a narrow postical band. *brevipennis.*
- Elytra deeply pitted from the base to the middle, less so in the postical part, each with a small median yellowish supra-marginal dot and a postical narrow line. *variolata.*
- B.* Elytra closely pitted, no lateral supra-marginal spot or band. *gilvipes.*
- C* Elytra with a continuous lateral white or yellowish-white band.
- Elytra finely shagreened, each with the suture and also the postical outer-margin produced on an acute spine, the male with a humeral dot and a narrow supra-marginal white band, the female without the humeral dot. *lepida.*
- Elytra closely pitted, the supra-marginal, narrow, white band reaching from the shoulder to the apex. *marginella.*
- Elytra broadly pitted, supra-marginal white band reaching from the shoulder to the apex. *connexa.*
- Elytra broadly pitted, supra-marginal white band reaching from the shoulder to the apex and slightly toothed inwardly past the middle. *lateralis.*
- D.* Elytra with a lateral white band throwing a longer or shorter ramus past the middle.
- Elytra closely and narrowly pitted, the supra-marginal, moderately narrow, white band with an inward, short ramus. *coarctata.*
- Elytra closely pitted with the supra-marginal broad band reaching from the base to past the middle, emitting a short, broad ramus inwardly and continued, without being disconnected, a little nearer the margin. *vittata.*
- Elytra closely and narrowly pitted, the supra-marginal, moderately narrow, white band directed inwardly, past the middle, and disconnected with the postical band. *hamata.*
- Elytra deeply pitted, the supra-marginal band emitting past the middle a very long narrow ramus directed backwards. *furcata.*
- Elytra deeply pitted, the supra-marginal band broad and disconnected behind with the postical lateral band. *ramigera.*

Elytra closely, but not deeply, punctured, each with a narrow,
apical white band.

simplex.

E. Elytra with a supra-marginal band or spot.

Elytra strongly granulated, each with a narrow, elongated,
white apical patch.

granulata.

C. TRI-NOTATA, Klug.

Jahrb. I, p. 40.

C. INTERRUPTA. Klug, loc. cit. p. 40.

Brassy, shining on the upper part, cyaneous-black underneath ; head strigose, labrum of the male pale-yellow edged with a very narrow black line, that of the female also edged with black, but having two infuscated patches in the centre ; prothorax quadrate, finely shagreened, impressed transversely at the base and apex, grooved in the centre and with the two sides of the disk slightly gibbose ; elytra elongated, depressed, acuminated behind, those of the female not much ampliased past the middle, suture not produced into spines at the apex in either sex, regularly shagreened, and having on each side, above the outer margin, an elongated humeral patch, a narrow line in the middle, and a postical one reaching the apex, the humeral patch is wanting in the female ; femora cyaneous, tibiæ and tarsi reddish.

Length, 15 ; width, 5^{m.m.}

The shape of the prothorax is much more quadrate than in the other species of the genus, not so much, however, as in *Dromica*.

Cape Colony. Exact locality unknown.

C. AMBITIOSA. new spec.

Bluish-black, little shining on the upper part, dark metallic-blue underneath ; head finely strigose, labrum of male yellow, narrowly edged with black ; prothorax sub-cylindrical, finely plicated, transversely impressed in front and behind, grooved in the centre and with the two sides of the disk slightly raised ; elytra convex, narrow, deeply and closely pitted, with the suture produced at the apex in two

acute spines ; they have on each side, above the outer margin, a moderately broad, humeral, yellowish-white band coalescing with a median one, and also a third and disconnected band, of the same colour which reaches the apex ; tibiæ reddish.

Length, 13 ; width, 3^{m.m.}

I only know the male (one example) and it is quite possible that the junction of the humeral band with the median one is accidental.

Closely allied to *C. sex-maculata*, Chaud., but a little more deeply pitted ; the prothorax is narrower, and the lateral yellow patches are longer and narrower.

Transvaal (Barberton).

C. SEX-MACULATA. Chaud.

pl. II, fig. 8.

Bull. Mosc., 1860, IV. p. 306.

Bluish-black, shining but little on the upper part, dark metallic-blue underneath, and very shining ; head strigose, labrum of the male yellow, edged with black ; that of the female black and yellow in the centre ; prothorax sub-quadrate, finely plicated, impressed transversely in front and behind, grooved in the centre, the two sides of the disk slightly raised ; elytra narrow in the male, amplified at about the middle in the female, deeply and closely pitted, the suture ending in two apical acute spines, those of the male longer than the female's ; they have on each side, above the outer margin, a humeral elongated spot, a short one at about the middle, and a third one near the apex which it does not reach ; the knees and tibiæ are sometimes reddish.

Length, 14-15 ; width, 4-5^m.

Transvaal (Lydenburg, Potchefstroom), Delagoa Bay (teste Chaud.).

C. CITREO-GUTTATA. Chaud.

Rev. Zool., 1864, p. 41.

Bluish-black, but little shining on the upper part, dark metallic-blue, very shining underneath ; head strigose, labrum of the male

yellowish, finely edged with black, that of the female black and yellow in the centre; prothorax sub-quadrate, finely plicated, impressed transversely in front and behind, grooved in the centre, with the two sides of the disk slightly raised; elytra narrow in the male, much amplified, a little past the middle in the female, deeply and closely pitted, the suture ending in two long, sharp spines in the male, much shorter in the female; they have on each side, above the outer margin, a very broad, humeral, yellow patch, an ovate one in the middle, and a third one, as broad as the humeral one, near the apex.

Length, 14-16; width, 4-6^{m.m.}

Differentiated from *C. sex-maculata* by the size of the lateral patches of the elytra which are considerably larger and more yellow.

Zululand. ? Transvaal (Potchefstroom).

C. GRUTI. Chaud.

Catal. Collect., 1865, p. 52.

C. CORDICOLLIS. Chaud., loc. cit., p. 53.

Bluish-black, very little shining on the upper part; dark metallic blue, very shining underneath; head and prothorax as in *C. sex-maculata*, but the prothorax is a little longer and the elytra not quite so deeply pitted; they have on each side, above the outer margin, a very narrow white humeral line, a small dot in the middle and another white line not broader than the humeral one, near the apex, knees and basal part of tibiæ often reddish.

Length, 13-15; width, 3-5^{m.m.}

C. cordicollis. Chaud., is a female example of *C. Gruti*, lacking the humeral white line; one of my female specimens has no median white spots; another has only the apical band left. In the British Museum, I have seen four female examples, two of which had no humeral white line; two had dark-blue legs, while the legs of the other two were reddish.

Port Natal (teste Chaud.), Delagoa Bay (Rikatla).

C. ELEGANTULA. Bohem.

Insect. Caffr. 1, 1848, p. 24.

Brassy-black, shining but little on the upper part, metallic-blue, very shining underneath; base of antennæ reddish; head strigose, labrum yellow, very narrowly edged with black; prothorax subquadrate, plicated, impressed transversely in front and behind, grooved in the centre, with the two sides of the disk very slightly raised; elytra elongated, shagreened, brassy black, but with the outer sides dark-blue, and having on each side, above the outer margin a humeral round yellowish-dot, a sub-ovate one in the middle and a narrow line of the same colour at the apex; tibiæ reddish at the base and apex.

Length, 11; width, $3\text{--}3\frac{1}{2}\text{m.m.}$

Natal (D'Urban, Frere).

C. BREVIPENNIS. new spec.

Colouring and facies of *C. elegantula*; the elytra are much more rugose owing to the punctures being very small, deeper and confluent; they have no supra-marginal, humeral yellowish dot; the median dot and also the apical line are slightly narrower.

Length, 11; width, 3m.m.

Natal (Pietermaritzburg).

I have retained for this species the manuscript name given by De Chaudoir.

C. VARIOLATA. Chaud.

Catal. Collect., 1865, p. 51.

Brassy-black, very little shining on the upper part; bright metallic blue underneath; head strigose, labrum of male yellow, edged with black, antennæ short and thicker than in the other species of the genus; prothorax strongly impressed in front and behind, grooved in the centre, with the two sides of the disk convex; elytra very convex,

deeply pitted from the base to about the middle, and much more narrowly and less deeply from the middle towards the apex, the suture produced in two long spines ; they have on each side, above the outer margin, a small median whitish dot and a narrow white line near the apex ; legs metallic green with the apex of the femora and the tibiæ reddish.

Length, $13\frac{1}{2}$; width, 4^{m.m.}

Allied to *C. brevipennis*, but larger ; the shape of the antennæ and of the prothorax is different, and the elytra are much more rugose.

Delagoa Bay (teste Chaudoir).

C. GILVIPES. Bohem.

Insect Caffr. 1, p. 25.

Greenish-black on the upper part, with the outer sides of the prothorax and elytra violaceous ; antennæ and legs red ; head strigose with the labrum of the male yellow, that of the female either totally black, or with a narrow, median, obscure yellow band ; prothorax finely plicated, sub-cylindrical, with the sides of the disk but little raised ; elytra elongated, hardly amplified past the middle in the female, the apical spines short in both sexes, although a little longer in the male, finely and regularly punctured, and with no supra-marginal markings.

Length, 9 ; width, $2\frac{1}{2}$ -3^{m.m.}

Natal (Maritzburg).

C. LEPIDA. Bohem.

Insect. Caffr. 1, p. 23.

Brassy-green, shining, the elytra with a bright golden, greenish tinge, underside and legs bluish-black ; head finely strigose, labrum yellowish, very narrowly edged with black in both sexes ; prothorax short, nearly cylindrical, impressed transversely in front and behind,

slightly grooved in the centre and finely plicated ; elytra elongated, narrow, slightly ampliased past the middle in the female, acuminate behind with the outer margin ending apically in a short spine, and the suture also produced in two sharp spines, longer in the male ; they are covered with closely set, deep, punctures which make them look finely shagreened, and have on each side, above the outer margin, an uninterrupted white band, beginning at a little distance from the base ; the male has also a small humeral spot of the same colour, always wanting in the female.

Length, 9-10 ; width, $2\frac{1}{2}$ -3^{m.m.}

This is the only *Cosmemia* known to me, in which the outer margin (as well as the suture) is produced behind in an acute spine.

Transvaal (Potchefstroom).

C. MARGINELLA. Bohem.

Insect. Caffr. 1, p. 22.

C. ALBICINCTELLA. Bates. Cistula. Entomolog. 1882, p. 334.

C. ALBOCLAVATA. Dokht. Rev. Mens. d'Ent. p. 4.

Elongated, brassy, moderately shining on the upper part, underside and legs bright bluish-black ; head strigose, labrum broadly infuscated at the base and apex in both sexes, and sometimes entirely black in the female ; prothorax short, sub-cylindrical, deeply impressed in front and behind, slightly grooved in the centre, the sides of the disk very little raised ; elytra elongated, nearly parallel in the male, slightly ampliased past the middle in the female, convex, closely covered with narrow punctures, with the suture ending in two long, sharp spines, shorter in the female ; they have on each side, above the outer margin an uninterrupted, narrow, yellowish-white band, reaching from base to apex.

Length, 11-13 ; width, $3-4\frac{1}{2}$ ^{m.m.}

Transvaal (Potchefstroom, Boksburg.)

In my examples, the labrum of the female, although more infuscated on the sides than the male's, is not black in the centre.¹

¹It is the *C. albicinctella* of Bates.

C. CONNEXA. new species.

Size and shape of *marginella* ; labrum of the male yellow narrowly edged with black, that of the female very broadly infuscated at the apex ; elytra elongated, nearly parallel in the male, amplified past the middle in the female, deeply and broadly punctured with the punctures confluent, these punctures much more narrow behind, the suture ending in two long spines, longer in the male, shining bronze, with a broad, dorsal green band, and a narrow white supra-marginal band reaching from the shoulder to the apex ; this white line is very narrow from the shoulder to about the middle, and nearly twice as broad from the median to the apical part, underside and legs bluish-black.

Length, 12-13 ; width, 3-4^{m.m.}

Very closely allied to *marginella*, differs mostly by the punctuation of the elytra, which is much broader and deeper, and intermediate between that of *marginella* and *lateralis*, the bronze sheen of the prothorax and elytra is also brighter, and the supra-marginal white band is also broader in the posterior part ; from *lateralis* it differs in the punctuation of the elytra not being so broad, and in the shape of the elytra of the female, which are much less amplified in the middle.

Natal (Frere).

C. LATERALIS. Bohem.

Ofvers. Vet. Ac. Förhand. 1860, p. 6.

Brassy, with a golden tinge, shining on the upper part, underside bright cyaneous-black ; head strigose, labrum (female) black with the outer sides narrowly yellowish ; prothorax sub-cylindrical, finely plicated, not deeply impressed transversely in front and behind, slightly grooved in the centre, with the discoidal part very little raised on each side ; elytra broadly pitted from the base to about the median part, the punctures narrower and less deep from the middle to the apex, with a series of deeper punctures with a golden tinge on each side ; they are convex, much amplified (female) past the middle, and have on each side, above the outer margin, a yellowish-white band

increasing in width from the middle towards the apex, and with a very slight inward spur about the third part of the length.

Length, $10\frac{1}{2}$; width, $5^{m.m.}$

Allied to *C. marginella*, but larger; the punctuation of the elytra is broader and deeper, and the lateral white band is much broader. This species, which I have seen in De Chaudoir's collection, under the manuscript name of *C. aspera*, is evidently a form of transition between *marginella* and *coarctata*.

Bechuanaland, Lake N'Gami (teste Boheman), Cape Colony (Kimberley).

C. COARCTATA. Dej.

Spec. II, p. 435. Iconogr. 1, p. 37, t. 1, f. 5.

Brassy, shining on the upper part, underside bright bluish-black, with the antennæ and tibiæ rufescent: head strigose, labrum yellow and very narrowly edged with black in both sexes; prothorax finely plicated, sub-cylindrical with the sides of the disk very little raised; elytra finely shagreened, convex, with the suture produced in two sharp spines, moderately long in the male, short in the female; they have on each side, above the outer margin a yellowish band reaching from the shoulder to the apex and emitting a short spur, directed inwardly, at about two-thirds of the length of the elytra; this marginal band from the spur to the apex is broader in the female.

Length, 12-13; width, $3\frac{1}{2}$ - $4\frac{1}{2}^{m.m.}$

Cape Colony (Port Elizabeth, Bathurst, Graham's Town, Sunday River).

C. VITTATA. Dej.,

Spec. V., p. 269.

Brassy shining on the upper part, underside and legs bright bluish-black; head strigose, labrum narrowly edged with black in the

anterior part (female); prothorax finely plicated, with the sides of the disk slightly raised; elytra convex, amplified past the middle, obtusely spinose at the apex, and finely shagreened; they have on each side, above the outer margin a broad yellowish band running from the base to past the middle where it is produced into a short, obtuse, inward spur, and continues from there to the apex, but nearer to the outer margin than from the base to past the middle.

Length, 13; width, $4\frac{1}{2}^{m.m.}$

It is closely allied to *C. coarctata*, but the lateral band is broader and not straight as in that species.

Cape Colony (exact locality unknown).

C. HAMATA. new species.

Brassy, shining on the upper part, underside bright bluish-black; head strigose, labrum yellow, narrowly edged with black in both sexes; prothorax finely plicated, sub-cylindrical with the sides of the disk very little raised; elytra finely shagreened, convex, the suture ending in two sharp spines, long in the male, very short in the female; they have on each side, above the outer margin, a yellowish-white band reaching from the base to past the middle where it is produced in a diagonal inward spur, and a second one, disconnected with the first, and nearer to the outer margin, beginning a little below the diagonal spur and reaching the apex.

Length, 12-13; width, $3-4^{m.m.}$

Cape Colony (Sunday River).

C. FURCATA. Bohem.

Insect. Caffr. I., p. 21, t. 1, f.A, 1-6.

C. TRANSVAALENSIS. Dokht. Rev. mens. d'Ent. p. 6.

Brassy, very shining on the upper part, underside bright cyaneous, legs with the tibiæ reddish; head strigose, labrum yellow, infuscated at the base and narrowly edged with black at the apex in both sexes;

prothorax sub-cylindrical with the sides of the disk slightly raised, finely plicated transversely ; elytra elongated nearly parallel in the male, the suture with two long spines, those of the female much amplified past the middle, with the sutural spines sharp and moderately long, very closely and equally punctured ; they have on each side, above the outer margin, a broad, yellowish-white band, broader towards the apex than near the base where it begins and sends at about the third part of the length of the elytra a long, diagonal spur directed towards the suture, which it does not reach.

Length, 15-16 ; width, 4-5^{m.m.}

A very distinct species.

Transvaal (Potchefstroom) ; Orange Free State (Parys).

C. RAMIGERA. new spec.

Bronze, shining on the upper part, underside bright cyaneous, legs metallic blue, with a greenish sheen, head strigose, labrum pale-yellow, very narrowly edged with black in front, and with a triangular black patch at the apex, prothorax conspicuously plicated transversely ; elytra elongated, slightly amplified past the middle, the suture with two long acute spines hardly diverging (male), very broadly punctured, with a dorsal row of deeper, shining foveæ on each side and a very broad supra-marginal yellow band straight from the shoulder to about the middle and directed from there diagonally on the disk, and a narrower one nearer to the outer margin, beginning below the slanting part of the supra-humeral one and reaching the apex.

Length, 16 ; width, 4 $\frac{1}{2}$ ^{m.m.}

Allied to *furcata* in the same manner as *hamata* is allied to *coarctata* ; it is, however, a little longer than *furcata*, the plication of the prothorax is much more pronounced, the sutural spines of the male, (I have not seen any female example), do not diverge so much, and the lateral margin is disconnected behind. This species, collected by De Wylder in Damaraland, was kindly lent me for description by Professor C. Aurivilius of the Stockholm Museum. I believe I have also seen a

male example in Chaudoir's collection under the name *ramigera*, Kraatz, and also from N'Gami or Damaraland.

¹C. SIMPLEX. Bates.

Cistul. Entomol. 1882, p. 333.

Black on the upper part, with the sides dark-blue, and margined with bronze; head strigose, labrum (female) black with a whitish median spot; prothorax cylindrical, plicated transversely, elytra elongated, ovate, with the suture strongly spinose at the apex, closely but not deeply punctured, and with a very narrow white band near the apex; legs dark-blue.

Length, 16^{m.m.}

The elytra are less densely punctured, narrower and more attenuated anteriorly than in *C. citreoguttata* (Bates).

Mozambique.

²C. GRANULATA. Dokht.

Mater. p. Cicindel. 1883, p. 5.

Rev. mens. d'Ent.

Brassy black on the upper part, black underneath, shining; labrum brownish with a black patch at the base; prothorax twice as long as wide, sub-cylindrical, with the median groove and the transverse plication nearly obsolete; elytra ovate, amplified past the middle, narrowed behind, the suture produced in a fine and very acute spine, strongly granulated, the granulation less pronounced behind, suture granulated, slightly raised, very distinct, and on each side of the elytra a small, narrow, elongated supra apical pale-yellow marginal patch.

Length, 12-13; width, 3-3 $\frac{1}{2}$ ^{m.m.}

? Caffraria.

¹ & ² These two species are unknown to me.

ADDENDA AND CORRIGENDA.

Gen. CICINDELA.

C. jucunda, mihi., p. 48, must be considered as identical with *C. vicina*, Dej., the Ovampoland examples of which are a little more robust in general facies than those from Senegal.

Herr W. Horn has described in the Deutsche Entom. Zeit., for 1889, two new *Cicindela*, one *Dromica*, and one *Cosmema* from South-Africa.

It is perhaps to be regretted that these four descriptions have been made from one example only, a proceeding which alone the publication of a Monograph can justify.

The species of *Cicindela*, to which the two insects described by Herr Horn are referred as being most closely allied, i.e. *marginella*, varies so much in the same locality that I would have had no difficulty in selecting 30 examples slightly differing from one another.

C. LAPHYRICORNIS, Horn.

Deuts. Ent. Zeit., 1892, p. 84.

Similar to *marginella*, Dej.; differs in the shape of the last joints of the antennæ which are amplified, the antennæ are shorter.

Length, $11\frac{1}{4}^{\text{m.m.}}$

Habit. Caffr. Zululand.

“This species is related most closely to *marginella*. Head and prothorax dull metallic, and a little more finely sculptured; labrum straight at the apex; elytra somewhat broader and more amplified from the median part towards the apex; the markings consist of a broad margin without any rami or dorsal macula, while such markings are to be found in the typical *marginella* of Dejean which I have examined, but the humeral and also the median rami are represented

in the present species by a small, black-edged tooth, there is also along the suture a hardly defined series of green punctures."

Will very likely prove to be identical with *C. inanis*, Wallengr.

C. SECURICORNIS. Horn.

loc. cit. p. 85.

Similar to *C. marginella*, Dej. ; the antennæ are shorter and the last joints more amplified ; more similar still to *C. laphyricornis*, but the elytra are narrower, more rounded at the apex, and marked differently.

Length, 9^{m.m.} Cap. Bon. Sp.

"Although the shape of the antennæ of this species, a male, is like that of *laphyricornis*, it differs much from it, the labrum is more produced apically, the head and thorax are as in *C. marginella*, but more shining ; the wing-covers are narrower than in *laphyricornis*, even narrower than in *marginella*, the markings consist of a narrow margin emitting a tolerably long humeral ramus, the median ramus begins somewhat nearer the base than in *marginella*, and slants further downwards, and the hind lunule is produced only as a small rounded protuberance."

DROMICA.

Dr. C. A. Dohrn has described in the Stett. Ent. Zeit. for 1891, p. 384, a new *Dromica*, which judging from the description will probably be found very closely allied, if not identical with *D. albivittis*, Chd.

D. BERTINÆ. Dohrn.

Stett. Ent. Zeit., 1891, p. 384.

"Female : Bronze on the upper part, violaceous-black underneath, antennæ brown with the basal joints brassy-green, labrum testaceous, mandibles very acute, very black, palpi testaceous, blackish at the tip, eyes brown, moderately prominent ; prothorax sub-

elongated, unequally pilose ; elytra more than twice as long as the prothorax, dehiscent behind, brassy, shining, margined with red and having four longitudinal, interrupted black costæ ; abdomen and legs violaceous-black."

Length, 13^{m.m.}

Transvaal.

D. QUINQUE-COSTATA. Horn.

Deuts. Entom. Zeit., 1892, p. 67.

Allied to *D. clathrata*, Klug., but the intermediate joints of the elytra are much less compressed, the thorax is more smooth, and the elytra not so roughly punctured.

Length, 17 $\frac{1}{2}$ ^{m.m.}

Natal.

"This species is closely allied to *D. clathrata*, the antennæ are not much longer or thicker than in *D. carinulata*, etc. ; the head is smaller than in *clathrata*, the prothorax more smooth on the upper part, the sculpture of the elytra is finer, particularly behind, where the costæ disappear, and the background is densely and finely punctured, the fine costæ are sharper, the sutural spines are smaller, the shape of the elytra is about the same, but a little broader and more depressed behind, the colouring is the same, and there is an oblong white patch on each side of the posterior margin."

COSMEMA.

C. INTERMEDIA. Horn.

Deut. Ent. Zeit., 1892, p. 68.

Belongs to the group of *C. elegantula* and *C. cordicollis*, but the sculpture of the elytra is less rugose, very fine behind, and the shape of the prothorax is less cordiform.

Length, 11 $\frac{2}{3}$ ^{m.m.}

Caffraria.

“Labrum shining, infuscated in the centre and on the sides, head much broader, prothorax only slightly broader than in *C. elegantula*, the longitudinal plications of the first part, and the transverse ones of the second, more distinctly separated, the sculpture is also more distinct, the impressions in the upper part are also deeper; the punctures on the elytra are smaller from the median part of the elytra towards the apex, the outer margins and legs are as in *elegantula*, the upper part of the disk being a little duller and darker, there is no sub-humeral spot, the median supra-marginal one is smaller and rounder, and the four basal joints of the antennæ are brown, the second, third and fourth brighter at the tip.”

The author goes on to compare this species with *C. cordicollis*, which he apparently knows from description only, always a dangerous proceeding.